



China's Evolving Nuclear Posture

Part II – The Evolution of China's Nuclear Strategy

Donald A. Neill
Strategic Analysis Section

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D.A. Neill
DRDC CORA

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Principal Author

Original signed by D.A. Neill, Ph.D.

D.A. Neill, Ph.D.

Strategic Analyst

Approved by

Original signed by G. Smoly nec, Ph.D.

G. Smoly nec, Ph.D.

Section Head, Strategic Analysis

Approved for release by

Original signed by P. Comeau

P. Comeau

Chief Scientist

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Abstract

This paper is the second part of a larger study the principal purpose of which is to determine the trajectory of China's nuclear weapons policy, strategy, capability and doctrine. Building on the first paper, which provided a benchmark for comparative analysis in the form of an overview of the evolution of US nuclear strategy since the end of the Second World War, this paper discusses the origins of China's nuclear strategy; its view of deterrence; what certain elements of its declaratory policy reveal about Beijing's nuclear strategy; and where that strategy appears to stand at present. The paper concludes that while the evolution of China's nuclear strategy bear some resemblance to Western patterns of nuclear evolution, the process has been largely unique; and that although Beijing will probably maintain an official commitment to minimal deterrence, China's nuclear strategy has progressed well beyond its declaratory policy, and is continuing to change rapidly. Further papers in this study will examine China's strategic nuclear forces, and investigate the principal drivers of China's declaratory policy, nuclear strategy, and nuclear doctrine. The study will conclude with a comprehensive report discussing the apparent trajectory of China's nuclear posture and the implications thereof for Canada and its allies, and suggesting directions for future research.

Résumé

Ce document est le deuxième volet d'une étude plus large dont l'objet principal est de déterminer la trajectoire de la Chine en matière de politique des armes nucléaires, la stratégie, la capacité et la doctrine. S'appuyant sur le premier document, qui a fourni un point de repère pour l'analyse comparative sous la forme d'un aperçu de l'évolution de la stratégie nucléaire américaine depuis le fin de la Seconde Guerre mondiale, cet article discute les origines de la stratégie nucléaire de la Chine; son point de vue de la dissuasion; ce que certains éléments de sa politique déclaratoire révèlent sur la stratégie nucléaire de Pékin, et où cette stratégie semble se tenir à l'heure actuelle. Le document conclut que, bien que l'évolution de la stratégie nucléaire de la Chine ont quelque ressemblance aux modèles occidentaux de l'évolution nucléaire, le processus a été en grande partie unique, et que, bien que Pékin va probablement maintenir un engagement officiel à la dissuasion minimale, la stratégie nucléaire de la Chine a progressé bien au-delà de ses politique déclaratoire, et continue d'évoluer rapidement. D'autres documents dans cette étude examinera la Chine forces nucléaires stratégiques, et d'enquêter sur les principaux moteurs de la politique déclaratoire de la Chine, la stratégie nucléaire, et la doctrine nucléaire. L'étude se terminera par un rapport complet discuter de la trajectoire apparente du dispositif nucléaire de la Chine et ses conséquences pour le Canada et ses alliés, et à suggérer des orientations pour la recherche future.

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Executive summary

China's evolving nuclear posture: Part II - The evolution of China's nuclear strategy

D.A. Neill; DRDC CORA TM DRDC CORA TM 2011-156; Defence R&D Canada – CORA; September 2011.

Introduction: This paper is the second part of a larger study the principal purpose of which is to determine the trajectory of China's nuclear weapons policy, strategy, capability and doctrine. Building on the first paper, which provided a benchmark for comparative analysis in the form of an overview of the evolution of US nuclear strategy since the end of the Second World War, this paper examines the evolution of China's nuclear strategy over the course of its half-century as a nuclear weapon state. The present study looks at the origins of China's nuclear strategy in classical military and political philosophy; the influence of Mao and his successors; how China has, over the course of its nuclear tenure, gradually come to grips with the concept of deterrence; what certain elements of China's declaratory nuclear policy (notably its no first-use policy, its approach to strategic arms control, and its stand on ballistic missile defences) reveal about its nuclear strategy; and where that strategy stands at present.

Results: China's nuclear strategy is grounded in classical military theory and informed by classical Chinese military philosophy to a greater degree than was the case in the US, and has been heavily influenced by Mao and his successors; by their ideological commitment to People's War; and by unique adaptations of Marxist-Leninist military theory. China's relationship with deterrence has been complex, ranging from disdain for nuclear "paper tigers" to an "existential" deterrent capability; then to a "minimal" deterrent based on a small number of inaccurate missiles carrying high-yield warheads; and finally, more recently, to what appears to be a "limited deterrent" based on some capacity for nuclear war-fighting. China has, for all intents and purposes, achieved a state of "essential equivalence" in nuclear capacity vis-à-vis potential adversaries, and as a consequence of its strategic force expansion and US strategic force reductions, is evolving towards parity.

Elements of China's declaratory policy (specifically, Beijing's no first-use (NFU) pledge; its approach to strategic arms control; and its view of ballistic missile defences) demonstrate a significant gap between Beijing's words and its deeds. China's NFU pledge is undermined by elements of strategy and doctrine that appear likely to permit first-use under circumstances where it would be strategically advantageous for China to do so; its arms control efforts appear to be designed less as instruments of international altruism than as a means of minimizing both China's strategic lacunae and the strategic advantages enjoyed by potential adversaries; and its strong opposition to missile defences as "destabilizing" is somewhat diluted by China's recent tests of anti-satellite and anti-ballistic missile weapons. China's nuclear evolution is more rapid and comprehensive than many observers appreciate. While China does not appear to be attempting to develop a genuine counterforce capability, Beijing is attempting to increase the number of options – including nuclear options – available to counter attempts by the US and others to interfere with realization of its strategic objectives within its area of interest and influence. Although it is not

clear at present where the trajectory of China's nuclear posture may be leading, Beijing is clearly no longer satisfied with its long-standing posture of minimum deterrence – if indeed it ever was.

For the sake of diplomacy, Beijing will likely continue to maintain a declaratory policy of “minimal deterrence”. Its nuclear posture, however, is already well beyond that, and is continuing to change. While aspects of the transformation are likely to resemble (at least in part) some aspects of America's strategic nuclear evolution since 1945, the trajectory of China's strategic nuclear evolution since its first detonation nearly fifty years ago has been comparatively unique to date, and likely will continue to be so.

Significance and Future plans: With its enormous population and rapidly-expanding economy, and given present trends in US economic choices, China is widely expected to be one of the most important and influential states in the world over the coming decades. While China is and will almost certainly remain an important trading partner, however, China's political regime is both antithetical and antipathetic to Western liberal democracy, and China's regional (and perhaps eventually global) aspirations are a matter of some concern. The future trajectory of China's nuclear posture is therefore a matter of critical interest to the Department of National Defence and, more broadly, to the Government of Canada.

The next (third) paper in this study will examine and assess the current status of China's strategic nuclear forces, looking both at extant systems and their capabilities and the programmes that are currently under way to update, upgrade or augment them. The fourth paper will attempt to discern the factors and influences that constitute the fundamental drivers of China's declaratory policy, strategy and doctrine in the nuclear domain. All of the papers produced in the course of this study will be compiled in a capstone paper that will offer an assessment of the likely trajectory of China's nuclear posture; propose recommendations for Canada and for allied states as they attempt to come to grips with the challenges and opportunities offered by China in the years ahead; and identify useful directions for further research into China's strategic intentions and capabilities.

Sommaire

China's evolving nuclear posture: Part II - The evolution of China's nuclear strategy

D.A. Neill; DRDC CORA TM DRDC CORA TM 2011-156; R & D pour la défense Canada – CORA; Septembre 2011.

Introduction: Ce document est le deuxième volet d'une étude plus large dont l'objet principal est de déterminer la trajectoire de la Chine en matière de politique des armes nucléaires, la stratégie, la capacité et la doctrine. S'appuyant sur le premier document, qui a fourni un point de repère pour l'analyse comparative sous la forme d'un aperçu de l'évolution de la stratégie nucléaire américaine depuis le fin de la Seconde Guerre mondiale, cette étude examine l'évolution de la stratégie nucléaire de la Chine au cours de sa moitié siècle comme un Etat doté d'armes nucléaires. La présente étude se penche sur les origines de la stratégie nucléaire de la Chine dans la philosophie politique et militaire classique, l'influence de Mao et de ses successeurs, comment la Chine a, au cours de son mandat nucléaires, progressivement venir à bout de la notion de dissuasion, ce que certains éléments de la politique nucléaire de la Chine déclaratoire (notamment son pas de politique de première utilisation, son approche de la maîtrise des armements stratégiques, et sa position sur les moyens de défense contre les missiles balistiques) révèle sur sa stratégie nucléaire, et où cette stratégie est à l'heure actuelle.

Résultats: La stratégie nucléaire de la Chine est fondée sur la théorie militaire classique et éclairé par la philosophie classique militaire oriental à un degré plus élevé que ce fut le cas aux États-Unis, et a été fortement influencée Mao et ses successeurs, de par leur engagement idéologique à la guerre populaire, et par adaptations uniques de la théorie militaire marxiste-léniniste. relations de la Chine avec la dissuasion a été complexe, allant de dédain pour le nucléaire "tigres de papier" à une capacité de dissuasion «existentielle», puis à un "minimum" de dissuasion basée sur un petit nombre de missiles imprécis transporter des ogives à haut rendement, et enfin, plus récemment, à ce qui semble être une «force de dissuasion limitée» sur la base des capacités nucléaires de combat. La Chine a, pour toutes fins utiles, réalisé un état de «l'équivalence essentielle» de la capacité nucléaire vis-à-vis des adversaires potentiels, et en conséquence de son expansion stratégique de la force et la réduction des forces stratégiques des États-Unis, est l'évolution vers la parité.

Les éléments de la politique déclaratoire de la Chine (plus précisément, Pékin n'est pas le premier engagement d'utilisation, son approche de la maîtrise des armements stratégiques, et son point de vue des moyens de défense contre les missiles balistiques) montrent un écart important entre les mots de Beijing et de ses actes. gage NFU Chine est miné par des éléments de la stratégie et la doctrine qui semble susceptible de permettre la première utilisation dans des circonstances où il serait stratégiquement avantageux pour la Chine de le faire; ses efforts de maîtrise des armements semble être conçu moins comme des instruments de l'altruisme international que comme un les moyens de minimiser les lacunes stratégiques de la Chine et les avantages stratégiques dont bénéficient les adversaires potentiels, et sa ferme opposition à la défense antimissile de "déstabilisation" est quelque peu diluée par des essais récents de la Chine de l'anti-satellite et des armes anti-missiles balistiques. L'évolution nucléaire de la Chine est plus rapide et plus complet

que de nombreux observateurs apprécient. Alors que la Chine ne semble pas être de tenter de développer une capacité de contre-véritable, Pékin tente d'accroître le nombre d'options - y compris l'option nucléaire - disponible pour s'opposer aux tentatives des États-Unis et d'autres d'interférer avec la réalisation de ses objectifs stratégiques dans son domaine de d'intérêt et d'influence. Bien qu'il n'est pas clair à l'heure actuelle où la trajectoire de la posture nucléaire de la Chine peut être à la tête, Pékin n'est clairement pas plus satisfait de sa position de longue date de la dissuasion minimum - si tant est qu'elle l'a jamais été.

Par souci de diplomatie, Beijing va probablement continuer de maintenir une politique déclaratoire de la «dissuasion minimale». Sa posture nucléaire, en revanche, est déjà bien au-delà, et continue de changer. Bien que les aspects de la transformation sont susceptibles de ressembler à (au moins en partie) certains aspects de l'Amérique évolution stratégique nucléaire depuis 1945, la trajectoire de la Chine évolution nucléaire stratégique depuis sa première détonation près de cinquante ans a été relativement unique à ce jour, et probablement continuera de l'être.

Importance et plans pour l'avenir: Avec sa population énorme et en pleine expansion économique, et compte tenu des tendances actuelles dans les choix économiques américaines, la Chine est largement pressenti pour être l'un des états les plus importants et influents dans le monde au cours des prochaines décennies. Alors que la Chine est et restera presque certainement un partenaire commercial important, toutefois, le régime politique de la Chine est à la fois antithétiques et antipathiques à la démocratie libérale occidentale, et la Chine régionaux (et peut-être éventuellement mondiale) aspirations sont un sujet de préoccupation. La trajectoire future de la position nucléaire de la Chine est donc une question d'intérêt critique pour le ministère de la Défense nationale et, plus largement, pour le gouvernement du Canada.

La prochaine (troisième) du papier de cette étude permettra d'examiner et d'évaluer l'état actuel de la Chine forces nucléaires stratégiques, la recherche à la fois les systèmes existants et à leurs capacités et les programmes qui sont actuellement en cours pour mettre à jour, améliorer ou augmenter leur. Le quatrième document va tenter de deviner les facteurs et les influences qui constituent les facteurs fondamentaux de la politique de la Chine, la stratégie déclaratoire et de la doctrine dans le domaine nucléaire. Tous les documents produits dans le cadre de cette étude seront compilés dans un document de couronnement qui offrira une évaluation de la trajectoire probable de la posture nucléaire de la Chine; de proposer des recommandations pour le Canada et les États alliés qui tentent de venir à bout des défis et les possibilités offertes par la Chine dans les années à venir, et dégager des orientations utiles pour la recherche plus loin dans les intentions stratégiques de la Chine et les capacités.

Table of contents

Abstract	i
Résumé	i
Executive summary	iii
Sommaire	v
Table of contents	vii
List of figures	viii
1 Introduction.....	1
1.1 Project genesis.....	1
1.2 Project concept and definitions	1
1.3 Methodology and outline.....	3
2 The roots of Chinese nuclear strategy.....	6
2.1 Tracking China's nuclear evolution	8
2.2 Classical origins.....	11
2.3 Mao and his successors	22
3 China's uneasy relationship with deterrence	46
3.1 Embracing deterrence	49
3.2 The rehabilitation of deterrence.....	54
3.3 Deterrence and 'essential equivalence'	59
3.4 The psychology of deterrence	66
4 China's declaratory policy	72
4.1 No First-Use	72
4.2 Strategic arms control.....	83
4.3 Missile Defences	91
5 Beyond minimal deterrence	95
6 Conclusion	106
List of terms and acronyms	113

List of figures

Figure 1 – Chuang Tzu, Sun Tzu and Lao Tzu in Chinese literature, 1900-2008.....	19
Figure 2 – Classical strategists in English-language literature, 1900-2008.....	20
Figure 3 – Comparison of the prevalence of Sun Tzu and other transliterations in English-language literature, 1900-2008.....	20
Figure 4 – Sun Tzu (Chinese) vs. Western strategists (English), 1900-2008.....	21

1 Introduction

This paper is the second part of a larger study the principal purpose of which is to determine whether China's nuclear weapons policy, strategy, capability and doctrine should be matters of concern to the Department of National Defence (DND). The first paper, entitled *China's evolving nuclear posture: Part I – Background and Benchmark*, is available from the Centre for Operational Research and Analysis at Defence R&D Canada.

1.1 Project genesis

With its enormous population and rapidly-expanding economy, and given present trends in US economic choices, China is widely expected to be one of the most important and influential states in the world over the coming decades. While China is and will almost certainly remain an important trading partner, however, China's political regime is both antithetical and antipathetic to Western liberal democracy, and China's regional (and perhaps eventually global) aspirations are a matter of some concern. The future trajectory of China's nuclear posture is therefore a matter of critical interest to the Department of National Defence and, more broadly, to the Government of Canada.

This study is derived from and is intended to support the broader investigation of China's emergence as a great power under the aegis of the Applied Research Programme (ARP) project 10aa16 established under Partner Group (0), entitled *The Rise of China: Strategic Assessment and Implications for Canadian Security*. A preliminary strategic assessment of China published in May 2010 identified the scope and strategic intent of China's nuclear modernization programme as topics in need of further investigation and analysis. This study, of which this present paper is the second instalment, aims to do so.

1.2 Project concept and definitions

As the fifth state to achieve a nuclear weapons capability and the last to obtain a permanent seat on the UN Security Council (UNSC), the People's Republic of China (hereafter PRC or China; Taiwan will be referred to throughout this study either as such, or as the Republic of China, or ROC) offers a unique case study in the evolution of nuclear policy, strategy, capability and doctrine. Unlike the US and the Union of Soviet Socialist Republics (USSR), China did not participate as such in either the bilateral arms race between the two superpowers; nor was it a key participant in the deterrent relationship characterized by thousands of cross-targeted strategic nuclear weapons that constituted the uneasy standoff commonly known as Mutual Assured Destruction, or MAD. Unlike Britain and France, respectively the third and fourth nuclear powers, however, China also did not occupy a subordinate position in a formal defensive alliance with one of the superpowers; its period of rapprochement vis-à-vis the Soviet Union was a matter of strategic convenience rather than fraternal sentiment between Marxists, and it endured only as long as Moscow remained willing to rattle its nuclear and conventional sabres to underwrite China's foreign policy objectives. By the time of Beijing's first nuclear detonation on 16 October 1964, such cooperation as remained between the two principal communist states was largely cosmetic; substantive cooperation between the USSR and the PRC was long over, and before the

decade was out, the world's two largest 'fraternal socialist allies' would be blackguarding each other at every opportunity.

Finally, as a state with both an enormous land mass and an even more enormous population (and – as a consequence of Mao's 'People's War', the Chinese communist version of the Napoleonic *levée en masse* – an equally enormous conventional army), China has never in modern times faced a serious threat of invasion. Beijing's military rationale for joining the nuclear club has always been obscure and often internally inconsistent, and thus its political rationale has more often been the principle subject of decryption and analysis – the more so because the regime's dogged opacity complicates empirical analysis and, consequently, encourages speculation.

While a good deal of attention has been paid to China's nuclear weapons, power and propulsion technologies, most of the strategic analysis surrounding China's nuclear thinking has focussed on the diverse but intimately interconnected domains of policy, strategy and doctrine. Each of these areas of study poses different challenges, and each, as a necessary first step, demands definition. Policy, for the purposes of this study, will be understood to be the stated intent of government – a concept that, where nuclear weapons are concerned, is usually articulated as **declaratory** policy, because our understanding of it is derived almost exclusively from declarations made by the government that is the subject of our investigation. Policy is generally easy to investigate and analyze, because governments make a point of telling us what their policy is, often in considerable detail. The principal difficulties with analysis of policy are two-fold: first, the government in question may be lying, which is to say that its policy, by definition produced for public consumption, may not reflect its actual intent; and second, even if its policy *does* reflect the government's intent, that intent may be misunderstood by analysts lacking an in-depth knowledge of the cultural and historical context underlying policy, which may lead to miscomprehension of the role of policy as a mechanism for internal and external dissemination of a specific government message. Also, policy may change without warning, either as a result of a conscious decision by the government, or by a change in the nature of the government. As a guide to future behaviour, therefore, policy is deceptively mercurial.

Focussing less on policy and more on doctrine, however, does not solve or even simplify the problem. In its proper military context, doctrine as a rule describes how a military force *intends* to fight, and is primarily derived from its theory for conducting operations and its capabilities, which are in turn a function of its structure, manpower and equipment. How that force *does* fight, however, is invariably situation-dependent and is subject to innumerable external influences (among which the actions of the enemy are not always the most important), not the least of which is policy itself, i.e., constraints resulting from political decisions taken without reference to the dictates of doctrine or even the operational situation. Moreover, actual military doctrine – especially doctrine for sensitive military endeavours like covert surveillance, the activities of Special Forces personnel, and operations involving nuclear forces – tends to be highly classified. As a result, any doctrine that is *not* classified is – like policy – more likely to be either patently obvious, unimportant, intended for public consumption, or intended to deceive a potential adversary. Thus doctrine, too, is a fickle and imprecise guide to analysis.

The key frailty of studies aimed solely at policy and doctrine lies in the obscure, insubstantial and often transitory nature of the subject matter, and analysis thereof is vulnerable to governmental opacity, rapid and unpredictable change, prevarication both chronic and acute, deception, and situational ad-hocery imposed upon a combatant *par la force des choses*. Moreover – and this is a

point that will be investigated further in the course of this study – both policy and doctrine are highly subjective topics that owe far more to the historical and cultural contexts and antecedents of their imaginers than is generally acknowledged. Accordingly, while this study will examine both China’s nuclear *policy* and its nuclear *doctrine*, its principal focus – and, indeed, the point of reference against which conclusions relating to policy and doctrine will be checked for relevance and accuracy – will be China’s nuclear *strategy*.

The advantage of focussing on strategy derives from its grounding in objective rather than subjective factors. This is especially true where nuclear strategy is concerned. What a nuclear weapon state (NWS) is or is not likely to do in time of crisis is determined to a large extent by what it can and cannot do – and these considerations in turn derive largely from constraints imposed by the state of technology and the shape and characteristics of the physical world. By examining what is known, what is probable, and what is possible in terms of a state’s technological capacity, force structure and posture, weapons systems, and military R&D in the context of its location and geography, its people and resources, its neighbours, and its past and present conduct, it is possible to define a variety of probable strategic trajectories for that state, and select therefrom those (or even the one) most likely to describe its preferred path toward its desired end-state. Furthermore, by comparing that path to policy and doctrine as articulated by the target state, it is possible to validate (or falsify) the inferred strategic trajectory – cognizant always, of course, of the fact that elements of policy and doctrine may be an exercise in deliberate deception designed to conceal the state’s strategic path, rather than serve as sign-posts pointing it out.

The research contained in this report has been limited largely to secondary source material due to institutional resource constraints. This paper, and all other papers prepared in this ARP, are constrained by the lack of access to primary source material (including Mandarin language sources and/or translation services), as well as a lack of opportunity for in-country research. Consequently, while every effort has been made to ensure that the present work meets acceptable scholarly standards, these constraints impose inescapable limitations that cannot be overcome without the provision of additional resources. Therefore, the results of this study should not be regarded as authoritative, but the best judgement of the author based upon his/her experience and the research material at hand.

A note on nomenclature. The Wade-Giles transliteration of Chinese characters that came into use in the second half of the 19th Century has been largely superseded by the Pinyin system. This has the potential to lead to some minor confusion, as many historical figures are known to the West typically in their Wade-Giles format (e.g., Mao Tse-tung and Chiang Kai-shek, who in Pinyin are known respectively as Mao Zedong and Jiang Jieshi). The problem is even more pronounced in the case of legendary individuals; the ancient Chinese military writer Sun Tzu, for example, is also referred to as Sun-Tsu, Sun-Tse, Sun-Tsi, and – in Pinyin – as Sunzi. For the sake of simplicity and consistency and in order to avoid unnecessary confusion, I will adhere throughout this paper to Pinyin transliteration, with Wade-Giles used only for illustrative purposes.

1.3 Methodology and outline

As noted above, China’s nuclear trajectory since its decision shortly after the establishment of the PRC to become a NWS has its foundations in a wide variety of historical and cultural wellsprings,

and differs considerably from the nuclear trajectories of the other Permanent Five members of the UNSC (and for that matter from all other NWS, both acknowledged and unacknowledged). The first paper in this study established a benchmark for the evolution of nuclear strategy in order to set the scene for this present paper, which will examine how China's version thereof is generally understood to have developed since Mao's regime first decided to create a domestic nuclear weapons capability; and for the third paper, which will examine the current state, modernization and likely trajectory of China's nuclear capability. While the first paper identified a variety of significant caveats that complicate (in some cases rather significantly) drawing any meaningful comparisons between the US and Chinese evolutionary experiences, the use of the US experience as a benchmark establishes a helpful timeline for comparison; introduced the concepts and ideas against which China's nuclear thinking, rightly or wrongly, tends to be compared; and established the Western, which is to say the American, baseline of nuclear strategy – a crucial consideration given that China's strategic development, especially over the past twenty years, evolved largely with the US occupying the role of most likely adversary.

This present paper, as the second part of this larger study, will examine how China's nuclear strategy has evolved over the past half-century, using the evolution of US nuclear strategy as a standard for comparison. It will begin with an examination of the classical roots of Chinese military thought, and from that foundation proceed to a discussion of how those roots appear to have been moulded both by China's more recent history; by the experience of the victorious Maoist faction both in China's civil war and in the war against the Japanese occupiers; by communist, Marxist and Maoist thought; and by the evolution of Soviet and American nuclear capabilities and strategy and experience. The paper will examine China's complex and uneasy relationship with the concept of nuclear deterrence, and will address controversial and often contradictory aspects of Beijing's declaratory policy, including its policies on strategic arms control and disarmament, ballistic missile defence, counterforce, and no-first-use.

From the foundation provided by the first and second papers, the next (third) paper in this study will offer an objective overview of China's evolving strategic capability, a category of military power that comprises not just nuclear weapons but rather all of the offensive, defensive, command and control and asymmetric technologies necessary to engage in nuclear operations vis-à-vis China's key potential adversary – which, from China's perspective, is at present the United States. This will include an appreciation not only of China's warheads and delivery systems, but also of its capacity to manage nuclear operations; its pursuit of asymmetric force multipliers designed to exploit the inherent weaknesses of American nuclear and conventional weapons systems; its alleged preparations, both conceptual and practical, for nuclear war-fighting; and its growing embrace of allegedly destabilizing technologies like ballistic missile defence.

Having discussed China's strategic thinking and its strategic nuclear capabilities, the fourth paper will attempt to derive and articulate the principal drivers of China's nuclear strategy – the key factors that have influenced its evolution over the half-century since China's nuclear programme got under way, and that are likely to influence that programme, at least for the foreseeable future. Four categories of influence will be discussed: the advancement of China's strategic interests, including self-defence; the gradual (and quite deliberate) displacement of Marxist/Maoist ideology by an increasingly emphatic nationalism; the enduring irritant of Taiwan; and the central importance of the US, in particular its role in the Western Pacific, and throughout Asia writ large.

These individual papers, once complete, will be compiled in a final report that will attempt to derive from the conclusions reached in the course of this project an assessment of what seems to be the most probable strategic path for China's ongoing evolution as a nuclear weapon state. Having identified the key conceptual and technological waypoints in China's nuclear policy, strategy, capability and doctrine, the goal of this final report will be to articulate a best-fit trajectory that incorporates and explains to the greatest extent feasible all of the data observed to date. As with any attempt to project future events from a comprehensive analysis of historical trends, the aim is not to pretend to oracular precision with respect to the future shape of the international security environment (which, as with any complex interdependent nonlinear system, is by definition impossible), but rather to offer a rough projection of where, *ceteris paribus*, China's strategic ambitions are likely to take China's nuclear thought and capability over the near term; to identify areas for further research; and to suggest the sorts of sign-posts that present and future analysts ought to look for in order to determine whether China is still following the anticipated path, or whether – as has happened so often in the past – the political masters of the Middle Kingdom, seeing two roads diverge in a wood, have decided to follow the one less traveled by.

This study forms part of the broader investigation of China's re-emergence as a key great power under the aegis of the Applied Research Project (ARP) 10aa16, established in April 2009, entitled *The Rise of China: Strategic Assessment and Implications for Canadian Security*. This project seeks to answer three basic questions: (1) Is the current trajectory of China's rise likely to continue? (2) What are the implications for the international order? (3) What are the implications for Canadian security? The research contained in this report has been limited largely to secondary source material due to institutional resource constraints. This paper, and all other papers prepared in this ARP, are constrained by the lack of access to primary source material (including Mandarin language sources and/or translation services), as well as a lack of opportunity for in-country research. Consequently, while every effort has been made to ensure that the present work meets acceptable scholarly standards, these constraints impose inescapable limitations that cannot be overcome without the provision of additional resources. Therefore, the results of this study should not be regarded as authoritative, but the best judgement of the author based upon his/her experience and the research material at hand.

2 The roots of Chinese nuclear strategy

One of the chief impediments to any examination of the internal deliberations of a relatively opaque organization like the Communist Party of China (CPC) and its principal strategic and military decision-making entities is secrecy. All states keep secrets as a matter of course, and defence secrets tend to be among the most jealously guarded. Nuclear secrets are naturally handled with even greater care than the average breed of classified information, and totalitarian states tend to exercise a more rigorous degree of vigilance over information deemed to be potentially injurious to the interest of the state – and in such states, there is nothing like the pressure for transparency that tends to characterize the nuclear debate in free societies. As a consequence, substantive analysis of how China’s nuclear capability, strategy and doctrine have evolved over the course of the past five decades had to wait for official government statements about the roles and missions of China’s nuclear forces to become available.

This did not happen until 2006, when the Defence White Paper published that year by Beijing took the unprecedented step of discussing China’s nuclear strategy in a document intended for public consumption.¹ That document discussed the role of the PLA Navy in conducting “nuclear counterattacks” and the importance of the Second Artillery Force as a strategic deterrent, and described China’s approach to nuclear weapons in the following terms:

China’s nuclear strategy is subject to the state’s nuclear policy and military strategy. Its fundamental goal is to deter other countries from using or threatening to use nuclear weapons against China. China remains firmly committed to the policy of no first use of nuclear weapons at any time and under any circumstances. It unconditionally undertakes not to use or threaten to use nuclear weapons against non-nuclear-weapon states or nuclear-weapon-free zones, and stands for the comprehensive prohibition and complete elimination of nuclear weapons. China upholds the principles of counterattack in self-defense and limited development of nuclear weapons, and aims at building a lean and effective nuclear force capable of meeting national security needs. It endeavors to ensure the security and reliability of its nuclear weapons and maintains a credible nuclear deterrent force. China’s nuclear force is under the direct command of the Central Military Commission (CMC). China exercises great restraint in developing its nuclear force. It has never entered into and will never enter into a nuclear arms race with any other country.²

The 2006 White Paper went further, discussing the role of the PLA Navy in conducting “nuclear operations” and that of the Second Artillery Force in executing “strategic nuclear counterstrikes”. This degree of clarity was something of a departure from previous practice. While the 2004 White Paper had made similar statements about the PLA Navy’s SLBM force and Second Artillery’s ballistic missile capabilities, its discussion of China’s nuclear strategy had been limited to a reiteration of Beijing’s no-first-use (NFU) policy, its negative security assurances (NSA) vis-à-vis

¹ Jing Dong Yuan, “China’s Defense White Paper 2006”, WMD Insights, February 2007, 1. [http://www.wmdinsights.com/I12/I12_EA1_ChinasDefenseWhitePaper.htm]. Accessed 2 November 2010.

² *China’s National Defense in 2006*, “Section 2 – National Defense Policy”, [http://www.china.org.cn/english/features/book/194485.htm]. Accessed 24 January 2011.

non-nuclear weapon states (NNWS) and nuclear weapons-free zones (NWFZ), its support for nuclear non-proliferation, arms control and disarmament (NACD), and its promise never to engage in a nuclear arms race with any other state.³ The 2006 White Paper brought all of these elements into a comprehensive package alongside the principles of “counterattack in self-defense” and the intent to construct a “lean and effective deterrent”.

While this was admittedly thin gruel, it was considerably more than had ever been made available to outside analysts, who had hitherto been forced to subsist on a relatively anaemic diet of distant observation and informed speculation. The problem, as two Chinese analysts put it, was that

The Chinese government has seldom provided a clear definition of its nuclear strategy, which is a constant source of debate among China scholars. Some even believed China did not have a nuclear strategy and only managed with what it could get technologically... Most Chinese scholars argue that China has a ‘minimum deterrence’ strategy, and many Western scholars agree...others...believe China is transitioning from a ‘minimal nuclear deterrence’ to a ‘limited nuclear deterrence’ strategy...[or] a ‘unique nuclear strategy’ derived from China’s strategic culture, which does not belong to any Western category.⁴

Absent definitive statements from the PLA or its political masters, the shape of Beijing’s nuclear strategy remained obscure. Some understanding may be gleaned from articles penned (obviously, with official sanction) by senior military leaders and thinkers. Wang Zhongchun, both a Senior Colonel and a Professor at the PLA’s National Defense University (as well as a former visiting scholar at the US Army’s Strategic Studies Institute), laid out the strategic function of China’s nuclear forces in a recent edition of *China Security*, arguing that “China’s nuclear weapons play multiple strategic roles”:

First, nuclear weapons hold up China’s power status and its position as one of the five permanent members of the United Nations. Second, as a retaliatory strategic force, nuclear weapons are an indispensable deterrent to those nuclear states that put China on their ‘nuclear strike lists’. Finally, nuclear weapons, as ‘an assassin’s mace’, can be used at a time when China’s core national security and development interests are fundamentally undermined.⁵

These three roles offer a convenient short-hand framework for any investigation of the origins and evolution of Chinese nuclear strategy. According to this formulation, Beijing sees its nuclear capability as serving three core national interests: great power status; deterrence; and defence of the national interest. There are a number of interesting peculiarities in the list. The role of nuclear weapons in securing China’s international status, for example, is a familiar argument, but it is telling that it takes a military academic to cite it; it is not an official part of China’s nuclear

³ China’s National Defense in 2004, “Chapter X – Arms Control, Disarmament and Non-Proliferation”, [<http://www.fas.org/nuke/guide/china/doctrine/natdef2004.html#3>]. Accessed 24 January 2011.

⁴ Chu Shulong and Rong Yu, “China: Minimum Dynamic Deterrence”, in Muthiah Alagappa, *The Long Shadow: Nuclear Weapons and Security in 21st Century Asia* (Stanford, Ca.: Stanford University Press, 2008), 167.

⁵ Wang Zhongchun, “Nuclear Challenges and China’s Choices”, *China Security*, Issue No. 5 (Winter 2007), 61.

strategy, likely because China rejects India's argument that its nuclear capability should augur in favour of a permanent seat on the Security Council for New Delhi. Similarly, Wang's formulation of the deterrent function of China's nuclear arms – the notion that deterrence is required only against “those nuclear states that put China on their ‘nuclear strike lists’” – is, in an era agitated by worries over the threat of nuclear terrorism and nuclear use by rogue states, something of an anachronism.

Finally, the manner in which Wang formulates the third role of China's nuclear weapons is of particular significance, as it is the one that differs most substantially from the current nuclear strategy of other states. Wang is implying that Beijing would rattle its nuclear sabre in response not only to a threat to China's core national security interests, but also in response to a threat to China's “development interests”. While foreign to Western principles of nuclear strategy, this is a logical consequence of China's security policy. The CPC has defined national development as its key priority, a long-standing policy deriving, as we shall see, from Mao's original decision to subordinate the development of nuclear weapons to the primordial goals of industrialization, urbanization and wealth creation. Any foreign action likely to threaten these goals, Wang argues, is by definition a threat to China's vital interests. The problem is that lacking further definition of terms, the scope for nuclear use by China is potentially very wide. “Development interests” is a broad definition that could, by extension, encompass not only inter-state conflict and the US-China dispute over Taiwan's future but also import-export policy and controls, access to energy, environmental degradation, domestic and civil stability, demographics, international banking and international monetary policy, the actions of the markets, and a whole host of other influences that could potentially undermine China's rise to regional (and eventually global) industrial, economic and political pre-eminence.

2.1 Tracking China's nuclear evolution

China's embrace of a larger and at the same time more interconnected role in the global economic and security architecture naturally complicates any discussion of its overall political and military strategy. The fact that China has been pursuing deeper and more substantive intermingling of this nature reflects Beijing's drive for influence now that the superpower rivalry has ended. For some time now, Chinese officials have been emphasizing the fact that “The Cold War is over,” and arguing that, as a consequence, “the trend toward multipolarity is irreversible.”⁶ While Beijing never accepted the logic of America's self-proclaimed post-1989 ‘unipolar moment’, the CPC at least adapted to the reality of American global pre-eminence. Twenty years later, China seems poised to reap the benefits of the relative transfer of influence resulting from America's economic woes. This shifting tableau makes assessing the course of China's nuclear strategic thought somewhat more challenging, and requires trying to understand the motivations and drivers of state behaviour in an historical and socio-cultural context that is deliberately opaque, linguistically unique, and extraordinarily difficult for outsiders to penetrate. The difficulty is complicated by the fact that even such information as has recently been made available – e.g., successive Defence White Papers – represents policy pronouncements released for public, and especially Western, consumption. These may be nothing more than an exercise in disinformation. Even if they genuinely represent Beijing's intentions, as noted in the introduction to this paper

⁶ Lieutenant General Li Jijun, “Traditional Military Thinking and the Defensive Strategy of China”, Letort Paper #1: Speech to the U.S. Army War College, 29 August 1997, 6. [http://www.fas.org/nuke/guide/china/doctrine/china-li.pdf]. Accessed 10 November 2010.

(and as allowed for in the methodology), intentions can change rapidly – much more rapidly than capabilities. This is the key reason that intentions and capabilities are dealt with separately in this project.

A cursory comparison of China’s intentions as revealed in the documents that have been published with its emergent suite of capabilities suggests a significant gap between the former and the latter. China’s declaratory policy does not appear to match up with either its capabilities or its force structure, and the gap seems to be growing. This disparity between words and deeds, as it were, underlies the arguments made by some observers who assess that, over the past several years, “there has been a shift from a posture of minimum deterrence to limited deterrence, wherein China acquires the necessary components required for a limited war-fighting capability.”⁷ Analysis aimed at defining, let alone understanding, the gap between a declaratory policy designed to support one set of options, and a suite of capabilities that seems to be designed to support a different set of options, must proceed from an acknowledgement of the discontinuities between China’s present and historical understanding of strategy. As one writer has remarked, “...there is a Janus-like quality to the Chinese defence establishment, for it reflects two aspects of war and strategy. One face looks back to the People’s War tradition of the PLA’s past, while the other faces the complexities of strategic nuclear warfare and deterrence in the latter part of the twentieth century.”⁸ Understanding how the two faces of Chinese strategy are linked is key to any assessment of the possible future trajectories thereof.

Arguably, the problem is even more complicated than that, as the “face” of Chinese strategy that looks back is seeking philosophical referents not only in the Maoist tradition, but much deeper in antiquity – to the military thinkers of China’s past. Senior Chinese political and military thinkers are swift to acknowledge – even boast – that their approach to strategy is heavily influenced by traditional Chinese military thinking.⁹ For this reason, any discussion of China’s approach to nuclear weapons and nuclear strategy must proceed from at least a cursory understanding of the foundation provided by these traditional approaches, and how that foundation was expanded upon, strengthened or weakened, or otherwise altered by the political and military doctrine of the Maoist era.

Structuring such an examination demands some sort of division, which if chronological must, given the inevitable overlaps, necessarily be somewhat artificial. The first logical division is into two periods: pre- and post-detonation. Indian analysts have posited four pre-detonation stages in the evolution of China’s nuclear strategic thinking:

- A preparatory stage (1945-52), during which Beijing was “outwardly disparaging” of nuclear weapons, while at the same time working to adapt Mao’s People’s War theory to the new nuclear reality;
- A growing awareness of the implications of nuclear weapons (1953-56), during which China sought cooperation with and assistance from the Soviets, as well as shelter under the Soviet

⁷ Arpit Rajain, *Nuclear Deterrence in Southern Asia: China, India and Pakistan* (New Delhi: Sage Publications, 2005), 125.

⁸ Paul Goodwin, “Towards a New Strategy?” in Gerald Segal and William Tow, eds., *Chinese Defense Policy* (Chicago: University of Chicago Press, 1984), 36.

⁹ Li, 1.

nuclear umbrella during the period when Washington's official nuclear doctrine, Massive Retaliation, did not differentiate between targets in the Soviet Union and "Red China";¹⁰

- A firm decision to go nuclear (1957-60), first with Soviet assistance (until 1959, when it became apparent that Moscow was not going to simply hand stockpiles of weapons over to Beijing), and then on its own; and,
- The design and execution of a domestic nuclear weapons programme (1960-64): "a period of self-reliance, determination, and preparations for the first detonation."¹¹

The early development of China's nuclear strategy took place in this charged political environment, and continued after the first nuclear test had demonstrated China's nuclear capability. Two Chinese analysts divide the following four decades into three periods, one of which, they suggest, is only now beginning:

- "symbolic or existential deterrence" (1964-1980), during which period China possessed nuclear weapons, but with only very limited means of delivering them against strategic targets;
- minimum deterrence based on "quantitative ambiguity" (1980 to the present), during which period China leveraged a small but unknown number of deliverable strategic weapons to deter interference with its aims; and
- "credible and visible minimum nuclear deterrence" (from the present henceforth), during which period China, with growing confidence, technical skills, and strategic capabilities, and with an expanding role and stake in the international security architecture, needs to be more open about its national security interests and 'red-lines', and can afford to be.¹²

As with all chronologies, these subdivisions are based on their authors' understanding of the flux and flow of events, some aspects of which – especially those that are conceptual and, therefore, intangible – may be somewhat contrived. One of the goals of this paper will be to attempt to divine, to the extent possible, a more logical series of break-points separating developmental stages in Chinese strategic nuclear thought.

That said, producing a better chronology may prove difficult, and primary-source illumination is unlikely to be forthcoming. As the US Department of Defense (DOD) notes in its 2010 assessment of China's military capabilities,

The study of PLA views on strategy remains an inexact science, and outside observers have few direct insights into the formal strategies motivating China's force build-up, the leadership's thinking about the use of force, the contingency planning that shapes the PLA's force structure or doctrine, or the linkages

¹⁰ D.A. Neill, *China's Evolving Nuclear Posture: Part I – Background and Benchmark*, DRDC CORA TM (in press), 11-13.

¹¹ S.K. Ghosh and Sreedhar, *China's Nuclear and Political Strategy* (New Delhi: Young Asia Publications, 1975), 47.

¹² Chu and Rong, 170.

between strategic pronouncements and actual policy decisions, especially in crisis situations.¹³

Given the secrecy surrounding nuclear policies in general and the chronic, deliberate opacity of the CPC regime in Beijing in particular, divining the changing nature of China’s nuclear strategy over time, and its place and importance as a vital subset of Beijing’s overall national security strategy, is a non-trivial task. Absent inside information and access to primary source material, determining key watersheds in the evolution of China’s strategic nuclear thought will always be a matter of conjecture. These are not reasons to despair, but they *are* reasons to acknowledge from the outset the limited state of what is known, and what can be known, about China’s nuclear strategy, and to ensure that any analysis is accompanied by stern caveats about the inherent weakness of conjecture – even informed conjecture – when primary source material is wanting.

2.2 Classical origins

According to Chinese military officials, the three elements of traditional Chinese strategic wisdom are “the pursuit of peace, the high priority accorded national unity, and the emphasis on defense rather than offense.”¹⁴ While this statement is somewhat at odds with the argument that the works of ancient Chinese philosophers enjoy primacy of place in the formulation of policy and strategy, it does reinforce the understanding that tradition plays an important role in the policy and strategy debates, and it offers two additional, fundamental insights: first, that Chinese strategic thought has historically placed a great deal of emphasis on the role of defensive over offensive operations (a position which may have been adopted for political and diplomatic reasons, but which in any case concurs with the proposition about the fundamental differences between oriental and occidental methods of battle proposed by scholars);¹⁵ and second, that even on very short lists of strategic priorities, Chinese governments tend to include “national unity” as a matter of course. Both of these insights merit investigation, and will be discussed further along in this paper.

Our first port of call on this analytical odyssey is the above-mentioned notion of “traditional Chinese strategic wisdom”, and how large a role such wisdom played in serving as the foundation for the evolution of China’s contemporary political and military strategy as it pertains to nuclear weapons. The extent to which the political and military strategy of a state is influenced by classical strategic thought is naturally difficult to quantify; whole libraries are devoted to decrying the contributions to contemporary Western strategic thought of such luminaries as Caesar, Vegetius, Machiavelli, de Saxe, Gustavus Adolphus, Napoleon, Clausewitz, Jomini, Corbett, Mahan, Liddel-Hart, Chuikov...the list is virtually endless, and such condensed summaries of their respective input to what Hansen has termed the “Western way of war” are at best little more than distillations. In the case of China, however, the potential benefits of at least a cursory inquiry into the classical roots of contemporary strategic thought outweigh the effort demanded by the exercise, as it is generally accepted even among Chinese scholars that modern political and military strategists, especially since the Maoist take-over in the post-Second World War period,

¹³ Office of the Secretary of Defense, *Annual Report to Congress: Military and Security Developments Involving the People’s Republic of China 2010* (Washington, D.C.: Department of Defense, 2010), 13.

¹⁴ Li, 1.

¹⁵ See, for example, Victor Davis Hansen, *The Western Way of War: Infantry Battle in Classical Greece* (Oxford, UK: Oxford University Press, 1990).

have had a marked tendency to look to classical thinkers for example and inspiration. Students of the formulation of Chinese strategy since 1945 tend to agree that the modern body of Chinese political and military strategy owes a great deal to three principal sources of influence: “(1) China’s ancient military thought; (2) Mao Zedong’s contribution; [and] (3) the Soviet influence through Marxism-Leninism.”¹⁶ Each of these sources will be examined in detail in the course of this chapter.

2.2.1 China’s ancient military thought

When Deng uttered ancient aphorisms, it was easy for Westerners to ignore the unfamiliar references, but consideration of the classical Chinese strategic corpus that he embraced raises questions that compel our attention...¹⁷

The first source of inspiration for China’s modern political and military strategy – its “ancient military thought” – has a number of points of origin, but those most commonly cited are the philosophers Lao Tzu (Laozi) and Chuang Tzu (Zhuangzi), and the military strategist Sun Tzu (Sunzi).¹⁸ Tan credits these three for contributing what he deems the core principles of Chinese military thought: “(1) mind is superior to matter (*gingshen dayu wuzhi*); (2) thought is more powerful than weapons (*sixiang zhongyu bingqi*); [and] (3) doctrine overcomes (bare) strength (*daoshu shengyu qiangquan*).”¹⁹ While these general principles are allegedly derived from the collected works of all of the authors cited, an analysis of Chinese-language literature of the past century (see section 2.2.2) suggests the most influential of the three in the past century was Lao Tzu, while the most widely referenced military philosopher is without question Sun Tzu.

Students of classical military strategy tend to focus on a number of well-known thinkers whose contributions to the military art are deemed to stand apart from those of lesser-known strategists. While the potential membership of this select group is vast, few would dispute that among the key names that continue to resurface in discussions of the roots of military strategy, about a half-dozen individuals qualify as *prima inter pares*. Carl von Clausewitz (Prussia), Henri Antoine de Jomini (France), Alfred Thayer Mahan (USA), Giulio Douhet (Italy), Sun Tzu (China), and Miyamoto Musashi (Japan) are generally considered the première military thinkers of their respective countries.²⁰ While these names do feature prominently in Western literature over the past century, their prevalence is significantly less than that of Chinese thinkers in Chinese literature. The analysis offered in the next section of this paper demonstrates the accuracy of the

¹⁶ Georges Tan Eng Bok, “Strategic Doctrine”, in Gerald Segal and William Tow, eds., *Chinese Defense Policy* (Chicago: University of Illinois Press, 1984), 4.

¹⁷ Jacqueline Newmyer, “The Revolution in Military Affairs with Chinese Characteristics”, *The Journal of Strategic Studies*, Vol. 33, No. 4 (August 2010), 493.

¹⁸ These gentlemen did not, as it might seem, all share the same given name. “Tzu” (“Zi” in Pinyin) was an honorific equating to “master” of a given discipline – hence, Master Sun, Master Lao, Master Chuang.

¹⁹ Tan, 4.

²⁰ The Western strategists on the list produced their most noteworthy contributions during the century or so after Napoleon’s defeat at Waterloo. By contrast, Musashi flourished in the 17th Century, writing his *Go Rin No Sho*, the *Book of Five Rings*, during the early decades of the Tokugawa Shogunate; while Sun Tzu wrote his *Sunzi Bing Fa*, literally “Sunzi’s military principles” but known commonly in English as *The Art of War*, during China’s Warring States (*Zhan Guo*) period, between the 6th and 3rd Centuries BC. The aggregate list of six strategists is the author’s own opinion, deriving from experience as a lecturer in classical strategy at the Royal Military College of Canada.

argument that ancient philosophers and military thinkers like Lao Tzu, Sun Tzu and Chuang Tzu occupy a far more central place in Chinese literature than military thinkers like Clausewitz, Jomini, Mahan and Douhet do in the comprehensive body of Western literature. There is, accordingly, reasonably strong empirical support for the argument that ancient military and political thought has played a more central role in the formulation of contemporary Chinese military and political strategy than might be the case throughout the Western world.

The analysis offered in section 2.2.2 of this paper highlights how different classical thinkers waxed and waned in their influence on Chinese literature over the course of the past century. The relative “peaks” in popularity are especially interesting. Sun Tzu, nowhere near as popular as the political philosopher Lao Tzu in the waning days of the Republic, gained more recognition during the rise of Mao and the Communists. Sun waxed in popularity during the decline in PRC-USSR relations and the rise of Chinese nationalism as China was attempting to come to grips with the question of how to incorporate nuclear weapons into strategic planning; then plummeted, along with all other classical philosophers, during the corrosive anti-intellectualism of the Cultural Revolution. The ancient philosophers recovered again (and given the simultaneous rehabilitation of “bourgeois” traditional wisdom after the ouster of the Gang of Four, they recovered at equivalent rates), after Mao’s death, as Mao’s successors harked back to China’s long-distant cultural roots in search of common touchstones to support appeals to nationalism. Deng Xiaoping, for example, reportedly encouraged PLA officers and strategists to study the ancient philosophers, and even went so far as to compare the international security environment of his day to the unsettled strategic backdrop of the Warring States period against which Sun Tzu wrote his seminal treatise.²¹ Interestingly, the prevalence in Chinese literature of the political philosophers Lao Tzu and Chuang Tzu declined after the fall of the USSR, but the influence of the military philosopher Sun Tzu did not; and all, as the analysis in the next section of this chapter explains, experienced a brief resurgence after 2000, when China launched its “peaceful rise.”

Given his relative importance in Chinese literature, and taking into consideration the fact that his name and the principles he espoused are routinely cited by Chinese scholars and strategists in support of this or that concept or idea,²² it is worth taking a closer look at some of the overarching precepts articulated by Sun Tzu in his treatise on strategy. The aim of this examination will be to trace an outline of the principles of political and military strategy he advocated in order to determine whether the general profile of contemporary Chinese political strategy, and the less distinct but still visible silhouette of Chinese nuclear strategy, conform closely, loosely, or indeed at all to the general blueprint laid out by Sun Tzu. In doing so, it is neither necessary nor desirable to undertake a comprehensive analysis of Sun Tzu’s writings; this has been done so many times by so many different scholars that repeating the exercise here would extend an already lengthy discussion while adding little to the comprehensive body of strategic scholarship. For the purposes of this study, it is sufficient to derive the principle thrusts of those arguments that pertain directly to, and therefore are most likely to have informed the evolution of, China’s political and military strategy as a nuclear weapon state.

It would be a misrepresentation of Sun Tzu’s writings to reduce his work, as has so often been done, to a series of disjointed acontextual aphorisms. That said, elements of his advice form the

²¹ Newmyer, 491. The Warring States Period is generally taken to stretch from about 480 to 421 BC.

²² Sun Tzu has been heavily cited by Western scholars and strategists as well, particularly since the late 1970s and early 1980s.

individual threads in a larger tapestry of general strategic principles, many of which are reflected in the broader “traditional wisdom” that is taken as the foundation of Chinese political and military strategy. The first of these, borrowing a phrase from more recent writers like Basil Liddel-Hart, is perhaps best termed the ‘indirect approach’. Sun Tzu, for example, opined that while the “direct method” (the clash, or *l'arme blanche*, as Jomini put it) is required when joining battle, victory can only be assured through the application of “indirect methods” employed before battle begins.²³ This theme appears repeatedly, using different phrasing, throughout *The Art of War*. Sun Tzu advises that “the highest form of generalship is to balk the enemy’s plans;”²⁴ that “the victorious strategist only seeks battle after the victory has been won;”²⁵ and that, in perhaps his best-known adage, “supreme excellence consists in breaking the enemy’s resistance without fighting.”²⁶ His writings contain numerous examples of outmanoeuvring an enemy before battle begins in order to eliminate as many of the enemy’s advantages as possible, a principle that resonates in contemporary Chinese military strategy, where PLA writers advise against engaging the enemy (usually the US) in a force-on-force encounter, and instead counsel striking at weak points in his overall spectrum of capability. According to the US DOD, this preference for the indirect approach has, in recent years, manifested in the form of a growing focus by Chinese military writers on the US capacity for what China dubs “informationized warfare”, resulting in an emphasis on “the necessity of ‘destroying, damaging, and interfering with the enemy’s reconnaissance...and communications satellites’...to ‘blind and deafen the enemy’.”²⁷ Weakening the US advantage in reconnaissance, data management and secure communications before battle begins could, pursuant to the ‘indirect approach’ only be advantageous; the loss of a crucial advantage could dissuade the enemy from engaging in combat, breaking his resistance without fighting; and, if combat begins anyway, would degrade his performance, possibly to the point of ensuring victory before battle is joined. Such an approach vis-à-vis a materially superior foe is entirely consistent with Sun Tzu’s principles.

Another consistent, related theme in Sun Tzu’s work is the emphasis that he places on deceiving the enemy; warfare, in his estimation, is grounded in deceiving the enemy (the usual formulation is “all warfare is based on deception,” or “in war it is all about tricks,” *bing zhe guidao ye*).²⁸ The argument runs through the whole of his book. “When able to attack,” he enjoins,

we must seem unable; when using our forces, we must seem inactive; when we are near, we must make the enemy believe we are far away; when far away, we must make him believe we are near. Hold out baits to entice the enemy. Feign disorder, and crush him....If he is in superior strength, evade him....Pretend to be weak, that he may grow arrogant. Attack him where he is unprepared, appear where you are not expected.²⁹

²³ Sun Tzu, *The Art of War*, trans. Lionel Giles (1910), Chapter 5.

[<http://www.au.af.mil/au/awc/awcgate/artofwar.htm>]. Accessed 8 November 2010.

²⁴ Sun Tzu, *The Art of War*, Chapter 3.

²⁵ Sun Tzu, *The Art of War*, Chapter 4.

²⁶ Sun Tzu, *The Art of War*, Chapter 3.

²⁷ Office of the Secretary of Defense, *Annual Report to Congress*, 25.

²⁸ Rajain, 105.

²⁹ Sun Tzu, *The Art of War*, Chapter 1.

“Practice dissimulation,” in short, “and you will succeed.”³⁰ Once again, this emphasis on the importance of deceiving the enemy not only about one’s intentions or strengths in order to gain a transitory tactical advantage, but also strategically, via politics, diplomacy and the use of spies in order to set the conditions necessary to ensure that any subsequent clash of arms is certain to result in a favourable outcome, is a hallmark of oriental strategic philosophy that did not find significant resonance in Western political philosophy until Machiavelli; or in Western military strategy until Clausewitz. Even once the principle of strategic deception had penetrated Western military thinking, the notion that battle, rather than being an end in itself, was merely the punctuation mark that terminates a lengthy strategic discourse between adversaries remained largely alien to the Western mind-set, at least until translations of Sun Tzu’s book became widely available in the 19th Century.

Not so in the Middle Kingdom. As one Indian analyst puts it, “if there is one single concept that has influenced contemporary Chinese strategic behaviour, it has been that of deception.”³¹ The US DOD concurs, arguing that Chinese statecraft has a long tradition of “stratagem and deception.”³² Beijing’s capacity for employing this ages-old technique at every level from the political to the tactical is facilitated by the obdurate opacity of the regime, the state and its military forces. Where Western states may be compelled via their own laws to exhibit at least a modicum of transparency, Chinese governments have traditionally maintained a rigid secrecy that owes more to centuries of imperial bureaucratic culture than to the comparatively recent innovations of communism. For these reasons, it is important not to take official or even seemingly unofficial pronouncements at face value, and to recall the difference (highlighted in a the preceding paper in this series) between strategy, doctrine, and policy – especially declaratory policy. Because the quest for strategic advantage is as important (if not more important) in peace as it is in war, deception is neither a singularly war-time endeavour nor an aberration, but the official currency of political and military affairs at all levels.

If the best-known of Clausewitz’s strategic insights is that war and policy are indivisible components on a continuum, one of the best-known of Sun Tzu’s principles is, if not the diametric opposite, at least jarringly tangential. The idea that excellence in warfare consists in “breaking the enemy’s resistance without fighting” has often been posited as evidence of an inherent aversion to battle on the ancient strategist’s part.³³ Sun Tzu was not the only advocate of a cautious and deliberate approach to combat; other Chinese philosophers, for example Mo Tzu (Mozi) a contemporary of Sun Tzu, evolved the notion of “‘non-offense’ (*fei gong*),” advocating, according to one senior PLA officer, “responsive rather than proactive actions.”³⁴ While it is possible, as it is with Sun Tzu, to interpret “non-offence” as an aversion to battle, it is perhaps more accurate to dub it an aversion to insensible battle – i.e., a rejection of battles undertaken without first developing a thorough understanding and appreciation of the enemy, his strengths, and his weaknesses, and working simultaneously to exploit the latter and negate the former. Sun Tzu himself rejects fighting for its own sake, counselling leaders to obtain as thorough an understanding of their enemy as can be achieved before committing to battle, promising (in

³⁰ Sun Tzu, *The Art of War*, Chapter 7.

³¹ Rajain, 104.

³² Office of the Secretary of Defense, *Annual Report to Congress*, 26. That the term “inscrutable” has over the years acquired unpleasant connotations is regrettable, since applying it to successive, highly secretive Chinese regimes, both communist and non-communist, is apt.

³³ Rajain, 102.

³⁴ Li Jijun, 3.

another of his better-known aphorisms) that the general who knows his enemy “as he knows himself need not fear the result of a hundred battles.”

This articulation of what might be termed a cognitive philosophy of conflict helps to explain the misperception that the works of Sun Tzu (and of his contemporary Mo Tzu, and for that matter of other Chinese philosophers and strategists of the period, like Chuang Tzu – who, among his other contributions to Taoist philosophy, lamented that life is limited, while knowledge to be gained is unlimited) are somehow opposed to conflict. Such an interpretation both misstates and overstates the case. The common thread between these philosophers is their conviction that intangibles can often count for more in war than measurable advantages. This idea has most often been stated as “mind over matter”, a uniquely occidental phrase with so much paranormal baggage that using it as short-hand for a fundamentally philosophical precept causes more problems than it solves. It also mischaracterizes both the general thrust of much of China’s military philosophy, which by and large accepts “warfare and conflict as relatively constant features” of the political landscape – hardly a surprising conclusion given how many of China’s ancient philosophers were writing during the Warring States period – and considers violence to be a “highly efficacious means for dealing with conflict.”³⁵

What Sun Tzu seems to have been attempting to convey was the importance, amongst other things, of according primacy of place to thought over action; of emphasizing the mental over the physical; and of putting men before machines. Put that way, this is not as alien a concept to Western ears as might be supposed; no less a commander-in-chief than Bonaparte is said to have held that “the moral is to the material as three to one.” This conceptual artery feeds much of China’s ancient political and military thought, and informs “strategy” at all levels, from the tactical, where the commander is enjoined to pay attention to the loyalty and spirit of his troops, to the political, where (as Clausewitz would later counsel) the thrust and aims of war must be circumscribed by, responsive to, and designed to achieve the political goals of the state.

The object of this cognitive approach to strategy, according to more recent interpretations, is to ensure that the “mental” (conceptual, intellectual, moral, spiritual) facets of conflict are accorded different priority and emphasis than the “physical” facets thereof (weapons and equipment, wounds and death, distance and terrain and weather). A different philosopher might have counselled that the disparate elements of war be “harmonized” with one another, harmony being a “quintessentially Confucian” ideal. Good order in all things, according to the sum of China’s guiding philosophy, “is the basis of prosperity and security.... Historically,” the same author goes on to argue, “China has assimilated aggression, rolling with punches, overcoming hardness with softness. Where possible it has avoided taking the offensive. This is not to say, of course, that the Beijing government avoids coercion close to home.... But it is to suggest that China prefers, particularly in a nuclear age, to use ‘soft power’ and ‘smile diplomacy’ abroad.”³⁶

This interpretation of the last of the key thrusts of China’s ancient philosophy (at least as it pertains to conflict and war) seems to strike closer to the mark. The competent general, according to Sun Tzu, strikes the enemy when and where he is weak, but evades him when he is strong. Sun Tzu counsels neither absolute conflict nor absolute surrender, but rather adapting to

³⁵ Rajain, 102.

³⁶ Piers Brendon, “China Also Rises” [<http://nationalinterest.org/article/cina-rises-4236>]. Accessed 12 November 2010.

circumstances – a feature of Chinese strategic culture that one author (Rajain) has dubbed “absolute flexibility” (*quan bian*). In words that might have been penned by Sun himself, flexibility is the hallmark of sound strategy because “the offensive application of violence is likely to be successful only if strategic conditions are right.”³⁷ In Sun Tzu’s estimate, while the competent general waits for the right conditions to emerge from the chaos (or to use a Clausewitzian notion, “friction”) of war, the truly excellent general creates them.

All of this begs the question: how well do such ancient precepts survive the transition from chariots, spears and swords to satellites, globe-spanning ballistic missiles, and thermonuclear weapons? One author has suggested a direct mapping of the old over the new, arguing that “if ancient Chinese military doctrines were transplanted to China’s current nuclear posture, Sun Tzu would consider counter-value targeting as least desirable, counter-force only slightly better, counter-control targeting, although it does not have exact correspondence, yet a little better, with the highest form being counter-strategy.”³⁸ While it may be enjoyable to indulge in speculative alternative history, it is too great a stretch to attempt to apply directly precepts taken out of context from ancient works to modern strategic problems, concepts and terminology. Sun Tzu’s admonitions were not intended, for example, to limit civilian casualties; to the extent that he enjoins generals not to attack “walled cities”, this is not to spare the occupants thereof the horrors of the inevitable rapine and pillage, but rather to avoid the needless expenditure of his soldiers’ lives against a strong point designed specifically to absorb an assault while inflicting maximum damage on an attacker. Instead, Sun Tzu counselled taking strong points by means of deception, e.g., through the use of spies and turncoats.³⁹ The purpose of doing so was not to preserve the city or its inhabitants, but rather to eliminate an enemy strong point via the most rapid and economical means possible.⁴⁰

A *strict* translation of Sun Tzu’s concepts to the nuclear era would not attempt to match his aphorisms to specific evolutionary paradigms, but rather would adhere to more modest goals, adapting general principles, where possible, to modern circumstances. Such a *conceptual* translation would, for example, counsel patience; deceiving the enemy about one’s true intentions; outmanoeuvring him and draining his strength diplomatically and via means aimed at exploiting his frailties; harbouring one’s strength and applying it, when the clash comes at last, only against crucial points that have already been weakened by stratagem; and using the least amount of force necessary to achieve the desired strategic objective.

Under the general thrust of ancient Chinese philosophy, the acme of generalship would be achieving victory – defined as accomplishing China’s strategic aims – without a single weapon being used, through the cautious and deliberate application of the indirect approach; deception; according primacy of place to intellectual and spiritual over purely physical factors; and through exemplifying the virtues of patience, adaptability, and “absolute flexibility.” This, by and large, is how China has thus far conducted itself as a member of the nuclear club.

³⁷ Rajain, 104.

³⁸ Rajain, 108.

³⁹ Especially “inward spies” and “converted spies”. Sun Tzu, *The Art of War*, Chapter 13.

⁴⁰ “The worst policy of all” being “to besiege walled cities.” Sun Tzu, *The Art of War*, Chapter 3.

2.2.2 Assessing the impact of the classical military philosophers upon contemporary strategic thought: a rough quantitative approach

It is difficult to structure a comprehensive, empirical test of the widely-held belief that ancient philosophers and military thinkers play a more important role in contemporary Chinese political and military strategy than their Western counterparts play in contemporary Western political and military strategy. A new automated database created recently by Google, however, offers a unique means of examining this question.

For some years, Google has been engaged in a tremendously ambitious project: the digital scanning of every book ever published. Google's watershed insight into the problem of machine translation was to minimize context; to ignore the gestalt of a piece of text and look simply at the immediate context of words next to each other, to throw away the rules and examine only numerical patterns. Applying the same logic to the new database resulted in Google's "n-gram viewer", a trial piece of software still in the testing phase. In order to avoid copyright problems, the researcher who proposed the project to Google in 2007 – Erez Lieberman Aiden, a mathematician following a Ph.D. in genomics at Harvard – suggested converting the scanned book database into a n-gram database: "a map of the context and frequency of words across history."⁴¹ This would enable scholars to conduct research on the scanned database without actually reading the books, and without forcing Google to violate millions of copyrights when publishing its accumulated store of data.

The Google database currently consists of 2 trillion words taken from 15,000,000 books, or one-eighth of all of the books published in every language since the Gutenberg Bible was printed in 1450. To make it searchable, the database had to be converted into n-grams: unigrams (single words or word-character groups), bigrams (double words or word-character groups), trigrams, and so forth. This required the database developers to make decisions about how to deal with, for example, contractions, compound words, hyphenated words, apostrophes, and so on, with separate decisions made for each of the ten linguistic corpora under development. The full details of how they went about this task can be found in their paper.⁴²

The fact that the database is broken into 10 publication corpuses makes it possible to compare the relative influence of different thinkers across languages. A search of the Simplified Chinese corpus from 1900-2008, for example, using the names Lao Tzu (老子, green), Sun Tzu (孙子, red) [孫子], and Chuang Tzu (庄子, blue) [莊子], yields the results shown in Figure 1, below.

⁴¹ John Bohannon, "Google Opens Books to New Cultural Studies", 17 December 2010

[<http://www.sciencemag.org/content/330/6011/1600.full.pdf>]. Accessed 11 January 2011.

⁴² Jean-Baptiste Michel, et al., "Quantitative analysis of culture using millions of digitized books", Scienceexpress.org, www.scienceexpress.org, 16 December 2010, Page 1, 10.1126/science.1199644. Accessed 11 January 2011.



Figure 1 – Chuang Tzu, Sun Tzu and Lao Tzu in Chinese literature, 1900-2008⁴³

As will be immediately apparent, Lao Tzu figures most prominently throughout the past century. What is more interesting, however, are the relative “peaks” in popularity among the three. Lao Tzu was immensely popular in the waning days of the Republic but plummeted enormously during the rise of Mao and the communists. All three waxed in popularity during the decline in PRC-USSR relations and the rise of Chinese nationalism, and then plummeted again during the corrosive anti-intellectualism of the Cultural Revolution. They recovered again after Mao’s death. Interestingly, while the political philosophers (Lao and Chuang) declined after the fall of the USSR, the military philosopher Sun Tzu did not; and all underwent a brief resurgence after 2000, before declining again near the end of the first decade of the 21st Century.⁴⁴

Where these curves take on a special significance is when they are compared to the prevalence of political and military philosophers in Western literature. If we perform the same trial on the English-language corpus, using Google’s n-gram viewer for names like (Carl von) “Clausewitz”, (Henri Antoine de) “Jomini”, (Giulio) “Douhet”, and (Alfred Thayer) “Mahan” and throwing in “Sun Tzu” and (Miyamoto) “Musashi” as points of Asian comparison, we find the results that are displayed in Figure 2. Mahan and Clausewitz, always dominant, peaked in prominence during the First and Second World Wars, and again during the late 1970s and early 1980s, when the US was designing, and debating the virtues and costs of, the “600-ship Navy”. Douhet, who wrote his seminal work on air power after the First World War, peaked briefly during the strategic bombing campaigns of the Second, but otherwise was a minor player in Western strategic debates. Jomini, prominent at the turn of the last century, declined in relative importance (possibly because the “military spirit of nations,” in which he put much stock, proved singularly ineffective against the combination of trenches, machine-guns and quick-firing artillery that dominated the Western

⁴³ The use of simplified characters only began in the 1950s, and only in the PRC, not Taiwan. The Google database, however, uses simplified characters; thus, searches for (for example) Sun Tzu using the traditional characters (孫子) instead of the simplified characters (孙子) give misrepresentative results. For this reason, figure 1 shows results using only simplified characters. The right half of the chart (1950s to 2008) is therefore likely more reliable than the left half (1900-1950s).

⁴⁴ It is important to note that the n-gram viewer cannot at present control for error at this level of investigation; for example, the appearance of the word “Musashi” in an English text could easily be a reference to the imperial Japanese Second World War battleship of the same name, rather than to the swordsman-strategist of the Tokugawa period.

Front), and never really recovered; while Musashi peaked twice, first during the Russo-Japanese War (1904-05), and second during the heavy penetration of the Japanese into the US financial and cultural industries in the late 1970s and early 1980s.

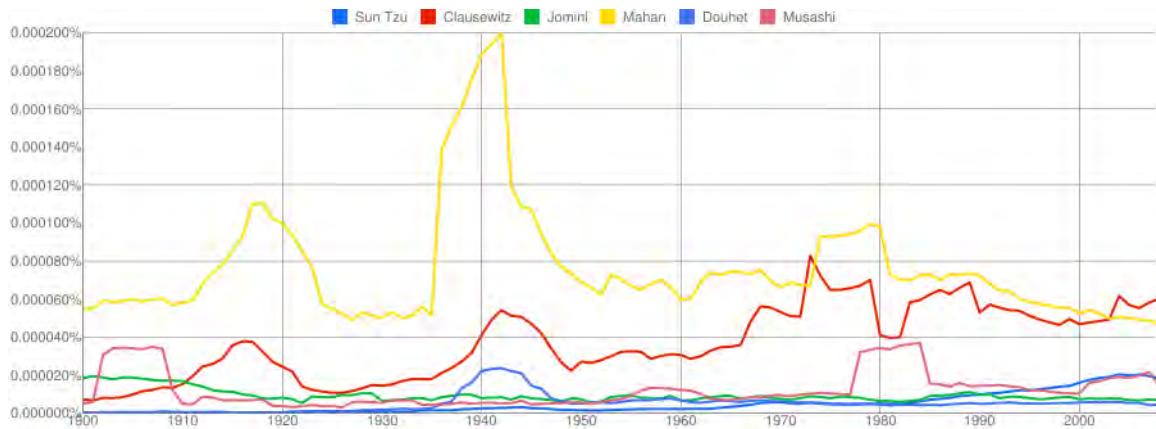


Figure 2 – Classical strategists in English-language literature, 1900-2008

In order to ensure that this interpretation of the prevalence of Sun Tzu in English literature is not misrepresented by differences between the Wade-Giles, Pinyin and other transliterations of the antique gentleman's name, it is worth checking the prevalence of the three most common variations thereof in the English-language corpus: Sun Tzu, Sunzi, and Sun Tse. Figure 3 shows the outcome of this check.

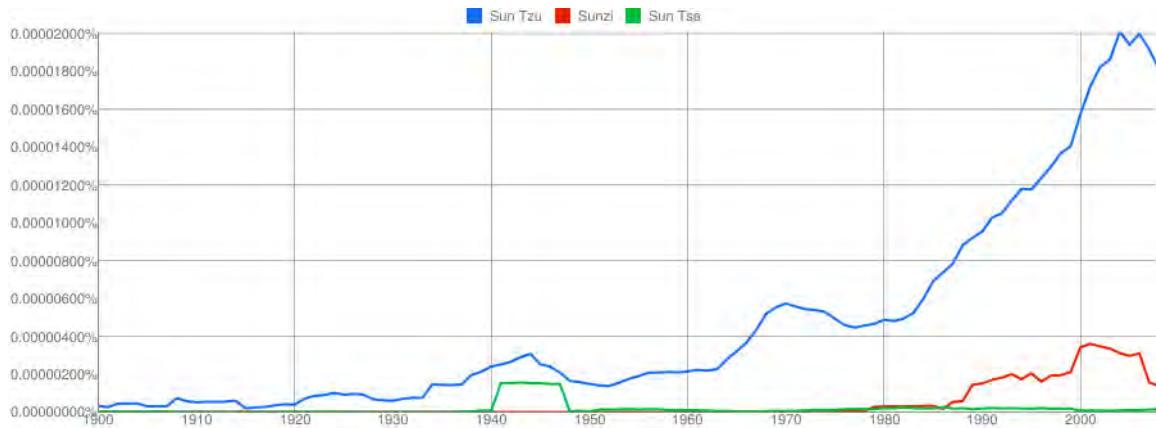


Figure 3 – Comparison of the prevalence of Sun Tzu and other transliterations in English-language literature, 1900-2008

This comparison demonstrates that the representational curve for "Sun Tzu" shown in figure 2 is not anomalous; the only peak in prevalence offered by "Sun Tse" (not surprisingly, during the Second World War) coincides with a larger peak for "Sun Tzu"; while the upsurge in prevalence of the Pinyin "Sunzi" that began in the late 1980s matches a much larger upsurge for "Sun Tzu" already under way since the late 1970s. The (very small) curve shown for "Sun Tzu" in Figure 2 may therefore be taken as representative.

It appears from these comparisons that Sun Tzu never figured as prominently in Western literature as did his principle Western counterparts, remaining at a low level of prevalence throughout most of the 20th Century. He only began to climb in importance after 1990, reaching roughly the same level of prominence as Musashi in the post-9/11 period. This contrasts sharply with Sun Tzu's impact in the Chinese literature of the past century, which, as noted above, grew strongly in the late 1950s and early 1960s, suffered a steep drop during the Cultural Revolution, strengthened again in the late 1970s, and grew even more around the turn of the present century.

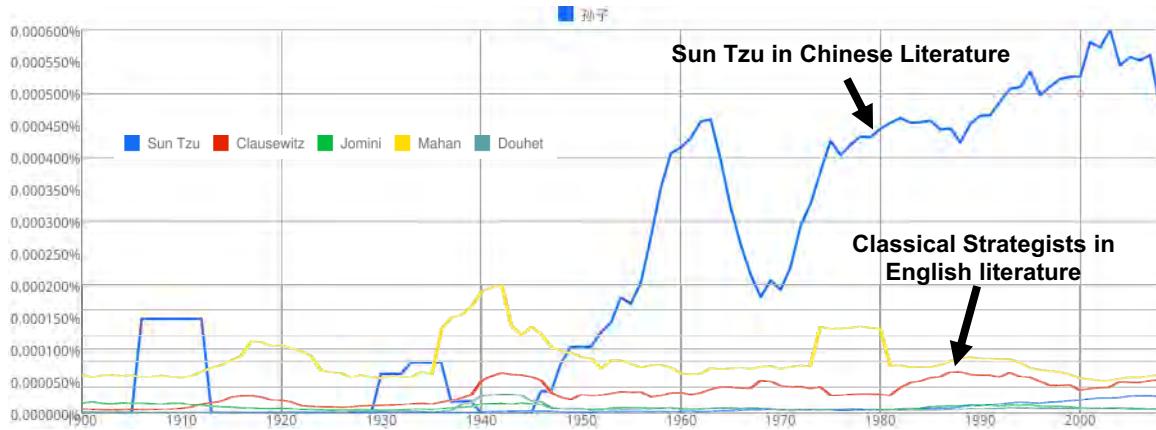


Figure 4 – Sun Tzu (Chinese) vs. Western strategists (English), 1900-2008⁴⁵

The impact is not really noticeable, however, until the Chinese and English corpuses are compared. Figure 4 superimposes the results for Sun Tzu / Sunzi in Chinese on the results for Sun Tzu, Clausewitz, Jomini, Mahan and Douhet in English, matching the prevalence scales along the left-hand side of the charts. The results are most instructive. While China was struggling to come to grips with nuclear weapons in the late 1950s and early 1960s, for example, Sun Tzu's name was roughly 10 to 20 times as prevalent in Chinese literature as military thinkers like Mahan and Clausewitz were in Western literature. The same pattern has been in place for the last 30 years, with Sun Tzu showing up in Chinese books roughly 10 or more times as often as Western military thinkers have shown up in English-language books.

While the results of such a database survey are rough at best, they at least provide some empirical support for the widely-held belief that the works of China's classical political and military thinkers have played a larger role in Chinese policy and strategy debates than their Western counterparts have played in similar debates in the English-speaking world. If nothing else, such data demonstrate that, as Newmyer puts it, there are indeed enduring "fundamental philosophical and political views that are reflected in the tradition and continue to shape the regime's behaviour around war and peace."⁴⁶

⁴⁵ Charts generated using Google N-gram Viewer [<http://ngrams.googlelabs.com/>]. Accessed 27 January 2010.

⁴⁶ Newmyer, 491.

2.3 Mao and his successors

*Most outstanding among the modern Chinese statesmen and strategists are Mao Zedong, Deng Xiaoping, and Jiang Zemin.*⁴⁷

One of the factors that complicates the objectivity of any assessment of the impact of individual, contemporary personalities on China's policy, strategy and doctrine is the tendency of totalitarian states to lionize leaders, both ante- and post-facto, while simultaneously purging from the collective memory (or even from actual history) individuals who may have been equally or even more influential, but who, for whatever reason, become inconvenient to the regime. The fall from grace, excommunication from the Bolsheviks, and eventual murder of Leon Trotsky is only the most widely known iteration of pattern that was repeated innumerable times during the rise of the communist and fascist tyrannies of the 20th Century. Dictators like Mussolini, Stalin and Hitler were painted by their own party machinery as great military thinkers and served as the foci of propaganda legends that endured until their manifest shortcomings became too obvious to paper over, as Hitler's did during the disastrous Eastern Front campaign of 1941-42, and as Mussolini's did during the Allied invasion in 1943.

While propaganda in the service of regime perpetuation lies at the heart of the tendency to paint the supreme leader as a great military thinker (or even as a spiritual, if not necessarily actual, reincarnation of Caesar, as was the case with Napoleon), there is in such developments a more subtle driver: the conflation, deliberate or unconscious, of policy – the purview of statesmen, as expressed in the above citation – with strategy. In this connexion it is useful to recall the distinction between policy and strategy that was established in the first paper in the present series: policy is what a government, based on the whole vast gamut of political and other calculations, actually does; while strategy is what a government – based on “objective rather than subjective factors”, including but not limited to the state’s “technological capacity, force structure and posture, weapons systems, and military R&D in the context of its location and geography, its people and resources, its neighbours, and its past and present conduct” – ought, logically, to do.⁴⁸ As the above-cited phrase suggests, the People's Republic, in a pattern not unfamiliar for totalitarian states, has created a pantheon of contemporary martial philosopher-kings.

While Deng had extensive practical military experience, Mao's early influence and his role as the leader of an embryonic state locked in wars both internal and external grant him primacy of place. It is therefore with Mao that we must begin if we are to understand how the modern Chinese approach to military strategy emerged from the welter of ancient strategic and political thought that makes up the foundations of China's strategic culture; and from the chaotic events that led up to the formation of the People's Republic and, a scant two decades later, China's first nuclear detonation.

Mao's approach to military philosophy might best be described as an admixture of pristine philosophy with the brutal realities of invasion, insurgency and civil war. While he is known to have cited the ancient Chinese philosophers as inspiration for his own theories of war, he diverged from them in a number of key areas. Where Sun Tzu, for example, deemed it “supreme excellence” to defeat the enemy without having to actually fight him, Mao, in his 1937 treatise

⁴⁷ Li, 3.

⁴⁸ Neill, *Background and Benchmark*, 3.

On Guerilla Warfare, took a somewhat harsher line, stating that “The first law of war is to preserve ourselves and destroy the enemy.”⁴⁹ This stance was almost immediately softened, however, in obedience to the strategic realities inherent in commanding a force that was always outnumbered and on the run from a better organized and better equipped enemy. In phrases more reminiscent of Sun Tzu, Mao proposed three propositions for victory: first, one should fight a decisive engagement only when victory is certain; second, one should avoid a decisive engagement when victory is uncertain; and third, one should “avoid absolutely a strategic decisive engagement which stakes the destiny of the nation.”⁵⁰ This latter admonition reflects the strategic concerns of a general for whom a single major defeat would likely have spelled the end, and was the primordial strategic consideration underscoring both the doctrine of People’s War that Mao evolved and promulgated, and the long-standing strategy of ‘active defence’ upon which People’s War was based, and which contemplated making use of China’s traditional advantage in space and numbers to absorb and dissipate the energies of a qualitatively superior enemy, allowing Beijing the time necessary to generate the forces to envelope and destroy him.⁵¹

Henry Kissinger in his 1957 discussion of the role of nuclear weapons in foreign policy delved deep into the philosophical underpinnings of Mao’s military thought, identifying areas where the echoes of Sun Tzu could be clearly heard. Mao, for example, copied almost verbatim Sun’s thesis that “it is not strength which decides war, but the ability to use it subtly and to the enemy’s maximum disadvantage.”⁵² He identifies another parallel to *The Art of War* in Mao’s advocacy of deception and dissimulation as means of attenuating and neutralizing a superior enemy’s advantages, the epitome of ‘active defence’; according to Kissinger, “Mao never tires of counselling a strategy of maximum ambiguity, in which the enemy’s impatience for victory is used to frustrate him.”⁵³ For the same reason – maintaining uncertainty in the enemy camp – the operations conducted by Mao’s forces were “as a rule surprise attacks.”⁵⁴ Deception similarly plays a crucial role in the intercourse between states; “negotiations can be utilized to magnify the psychological pressure on the opponent or to deprive him of the fruits of his victory.”⁵⁵ Mao even went so far as to import intact Sun Tzu’s doctrine of *sheng dong ji xi*, which has been translated as meaning “make a feint to the east and attack in the west.”, and which is usually summarized as the more literal and less lyrical statement that “all warfare is based on deception”.⁵⁶ Other aspects of Sun Tzu’s advocacy of energy in defensive operations – for example, the long-standing Chinese preference for “defense through strategic engagements” (*jiji fangyu*), as distinguished from purely positional defence (*xiaoji fangyu*) – were also incorporated by Mao into People’s War, becoming a part of official doctrine as expressed in his *Ten Basic Combat Principles*, which

⁴⁹ Mao Tse-Tung, *On Guerilla Warfare*, trans. Samuel B. Griffith (New York: Praeger Publishing, 1961), 20.

⁵⁰ Henry A. Kissinger, *Nuclear Weapons and Foreign Policy* (New York: Harper Brothers, 1957), 345-346.

⁵¹ This principle goes back to the ancient philosophers. Chen Ya-Tien, citing Wu Qi, another military writer of the Warring States period, notes six strategic conditions under which, “when unequal to your enemy...you must without doubt avoid him.” The conditions cited include (but are not limited to) when the enemy’s army is “large and well equipped”. Chen Ya-Tien, *Chinese Military Theory Ancient and Modern* (Oakville, Canada: Mosaic Press, 1992), 36-37. Consistent with Sun Tzu’s admonition to generals to avoid combat until victory is certain, such advice lies at the heart of the strategy of ‘active defence’.

⁵² Kissinger, 346.

⁵³ Kissinger, 347.

⁵⁴ Kissinger, 348.

⁵⁵ Kissinger, 348.

⁵⁶ Mao Tse-Tung, 29.

he issued at a Central Committee meeting in 1947, one principle of which was that “active defense by technologically and numerically inferior forces requires offensive mobile warfare.”⁵⁷

Mao’s tune changed somewhat once his forces had emerged victorious and he had exchanged the pressures of commanding a revolutionary army for those of unifying, pacifying and managing a fractured and badly damaged state. China, in the early years after its Communist rebirth, was underdeveloped, economically prostrate and militarily weak (at least vis-à-vis the array of probable strategic adversaries), conditions that do not lend themselves to a bellicose diplomatic and political posture. As a head of state, Mao placed more weight on the “preserve ourselves” part of his 1937 strategic vision, de-emphasizing the “destroy the enemy” part. Instead, he articulated a set of principles to govern the People’s Republic’s relations with other countries, stating that “we will not attack unless we are attacked; if we are attacked, we will certainly counter-attack....If we have been repeatedly ‘attacked’, then there should not be a limit for our counter-attack.”⁵⁸ This strategy, unlike Mao’s previous approach to military problems (which might best be characterized as consisting of deception, dissimulation, delay, dispersion, a willingness to trade space for time, and a paramount focus on preserving his army as a cohesive and effective fighting force) was to prove far better adapted than earlier strategies to the early years of the nuclear era.

In recent years it has become popular to assert that China is evolving towards a ‘limited war’ doctrine. In reality, this is nothing novel; Mao’s post-Civil War strategic philosophy advocated restraint and patience, and China’s military operations since 1949 – for example its wars with India (1962), the USSR (1969), and Vietnam (1979) – have all been limited in scope and means. The same has been true of Beijing’s conduct in its border disputes with India and Bhutan, and the numerous offshore maritime disputes to which China is party. China’s conduct in internal security matters, from its subjugation of Tibet and of its Muslim Uighur minority to the brutal suppression of the Falun Gong sect and the Tiananmen Square protests in 1989, is of course another matter entirely, and helps to shed light on the comparative seriousness with which Beijing views external vis-à-vis internal threats to the state – a topic that will be addressed in a later paper.

2.3.1 Building towards the bomb

Before 1955, discussion of nuclear weapons had been more or less taboo in Chinese political and military circles, and “[s]uch statements as had been allowed to appear were uniformly disparaging of the significance of nuclear weapons.”⁵⁹ There were a variety of reasons for this, but the most important appear to have been the importance of cultivating and maintaining cordial relations with China’s ‘fraternal socialist allies’ in the USSR, and the need to sustain military and civilian morale in the face of an overwhelming threat that China, in its straitened post-War circumstances, had no hope of matching, and against which no defence was possible. Mao himself had set the tone for the militant disinterest that would later characterize China’s collective approach to the new weapons, acknowledging – in August 1945, shortly after the destruction of Hiroshima and

⁵⁷ William H. Mott and Jae Chang Kim, *The Philosophy of Chinese Military Culture: Shih vs. Li* (New York: Palgrave MacMillan, 2006), 80 and 101.

⁵⁸ Mark Schneider, “The Nuclear Doctrine and Forces of the People’s Republic of China”, in *Comparative Strategy* 28 (2009), 248.

⁵⁹ Alice Langley Hsieh, “Communist China and Nuclear Warfare”, *The China Quarterly*, No. 2 (April-June 1960), 1-2. [<http://www.jstor.org/stable/651436>]. Accessed 4 November 2010.

Nagasaki – that while “some of our comrades...believe that the atomic bomb is all powerful,” such a belief was “a big mistake.”⁶⁰

The official suspension of disbelief about the potential impact of nuclear weapons on the international strategic calculus persisted throughout the latter half of the 1940s and most of the 1950s. Even while the US military was building hundreds of bombs – including inconceivably powerful thermonuclear weapons – and struggling to articulate a strategy for employing (or not employing) them in conflict, Chinese spokesman were publicly denigrating them. Again, such denials as were issued have a definite savour of desperation aimed at buttressing public and military morale; for example, a propaganda pamphlet issued in 1952 stated that while the US clearly intended to use nuclear weapons in the course of the conflict in Korea, atomic bombs were “not dreadful and the enemy could be outwitted.”⁶¹

Two years later, in 1954, Mao’s foreign minister Chen Yi informed his Soviet counterparts, “We do not believe that the power of atomic weapons is too overwhelming. We do not believe that atomic weapons could destroy mankind.” Mao took the argument even further, stating in 1957 that “[i]f the imperialists should insist on launching a third world war, it is certain that several hundred million more [people] will turn to socialism; then there will not be much room left in the world for imperialists, while it is quite likely that the whole structure of imperialism will utterly collapse.”⁶² While this sort of rhetoric perhaps served some purpose in reassuring China’s citizens, it likely had the opposite effect on Moscow, which at the time was closely allied with Beijing, extending – in principle, at least – the ‘umbrella’ of its nuclear deterrent force over its neighbour to the east. The notion that China, given its immense and widely dispersed population, ought to welcome a nuclear war as a means of hastening its eventual communist domination of the world was likely deeply alarming to Moscow, and probably contributed to subsequent negative decisions – for example, Moscow’s decision explicitly *not* to rattle its nuclear sabre on Mao’s behalf during the 1958 Quemoy-Matsu (Jinmen-Mazu) crisis; and its more momentous decision, taken the following year, to reduce and eventually terminate Soviet assistance to China’s nuclear weapons programme.

Ignorance cannot have been an excuse; as Hsieh noted in a paper written shortly after the decline in Sino-Soviet relations, China’s leaders were almost certainly “aware of the extent to which nuclear weapons and modern delivery systems had altered the nature of warfare and military doctrine.”⁶³ As already suggested, the ‘party line’ on the atomic bomb was in all probability selected to minimize fear and fractiousness among the populace by down-playing the significance of a capability that China was not in a position to replicate. Here, too, the policy direction was initially set by Mao and Foreign Minister Zhou Enlai. Mao’s early pronouncements on nuclear weapons, in which he is said to have dismissed them as “paper tigers” (although the accuracy of this translation is disputed), were clearly intended to “inspire the Chinese people’s morale.” Both

⁶⁰ Schneider, 246.

⁶¹ Schneider, 246.

⁶² Cited in James Mulvenon, “Chinese and Mutually Assured Destruction: Is China Getting MAD?”, in Henry D. Sokolski, *Getting MAD: Nuclear Mutual Assured Destruction, Its Origins and Practice* (Carlisle, PA.: US Army War College Strategic Studies Institute, 2004), 244-45.

⁶³ Alice Langley Hsieh, *Communist China’s Strategy in the Nuclear Era* (Englewood Cliffs, N.J.: Prentice-Hall, 1962), 167.

men, however, later clarified that the thrust of their argument had been mainly to emphasize that wars could not be won only with one or two advanced weapons.”⁶⁴

The restrictions on nuclear discussions eased somewhat in the years immediately following the end of the Korean War. Hsieh notes that, beginning in January 1954, there was “an unprecedented volume of comment on nuclear matters”, emphasizing four principal themes: the adoption of the “Khrushchev position” rejecting mutual deterrence and arguing that future war would end capitalism and bring victory for world socialism; the articulation of a new threat of the use by the US of nuclear weapons to prevent China from taking over Taiwan (occasioned by the 1954 Taiwan Strait operation); a frank acknowledgment of the importance of being able to adopt a nuclear posture vis-à-vis Japan; and finally, a gradual shift in political rhetoric for the benefit of the population, altering the decade-old line from “nuclear weapons are irrelevant” to a new doctrine: “nuclear weapons aren’t that bad.”⁶⁵

This new trend was likely the consequence of an internal acknowledgement of the fact of US military superiority in every field of endeavour, and the galling realization that the Taiwan Strait operation had had to be terminated early on in order to avoid accidentally crossing any of the strategic red-lines that might trigger a US nuclear strike.⁶⁶ This fact alone, along with the emerging concern in Beijing about the vast gulf between America’s policy and its capability, represented the first crack in the dam holding back the open discussion of nuclear matters, and Soviet thought – much of it admittedly also propaganda with little or no relation to reality – began to seep through. The fact that it did demonstrates that Chinese leaders were becoming increasingly realistic about the threat posed by nuclear weapons, and that the dismissive posture that had been the official party line – little more than rhetoric adopted for propaganda purposes – was no longer seen to be suited to China’s strategic needs.

Mao’s Politburo took the decision to acquire a nuclear weapons capability in 1955, but while this represented a watershed moment for China, the decision was not an unqualified one. At the time it was completed, the Manhattan Project had been the single costliest venture ever embarked upon by the US, and Mao was under no illusions about the extent of the strain that ‘going nuclear’ would place upon the state’s finances and resources. Butter could not be sacrificed for guns if China was to continue to attempt to recover from the wars it had undergone and drag its economy and industry out of the pre-Revolutionary doldrums. Competing priorities would have to be balanced. In a speech in 1956, Mao put the problem thus: “If we are not to be bullied in the present-day world, we cannot do without the bomb. Then what is to be done about it? One reliable way is to cut military and administrative expenditures down to appropriate proportions.”⁶⁷ The CPC, faced with an unpalatable choice between competing priorities, put development and modernization at the forefront, recognizing that the pursuit of military capability without economic advancement would only prolong China’s slow industrialization, while pursuing economic advancement, although it might delay the development of a strong military, would in the fullness of time create the wealth necessary to support it. Accordingly, the Politburo

⁶⁴ Sun Xiangli, “Analysis of China’s Nuclear Strategy”, *China Security*, No. 1 (Autumn 2005), 1. Via IRChina.org (Academy of International Studies and Department of International Relations, Nankai University). [<http://www.irchina.org/en/news/view.asp?id=401>]. Accessed 2 November 2010.

⁶⁵ Hsieh, “Communist China and Nuclear Warfare”, 3.

⁶⁶ Hsieh, “Communist China and Nuclear Warfare”, 2.

⁶⁷ John Wilson Lewis and Xue Litai, “Strategic Weapons and Chinese Power: The Formative Years”, *The China Quarterly*, No. 112 (December 1978), 544.

in 1956 “reaffirmed economic development as the critical need” on the understanding that, “in the long run only the full development of China’s industrial production capabilities would form the basis for her scientific and technological advance, and thus, for an enhanced and independent military posture.”⁶⁸ Such a decision, given China’s strategic realities, exemplifies Sun Tzu’s exhortation to leaders to exercise patience.

Thus from the outset China’s nuclear weapons programme was circumscribed by firm political boundaries. Mao defined the limits himself in 1956, stating that China’s nuclear arsenal “won’t be numerous even if we succeed,” and that its purpose would be not to seek global or even regional dominance, but rather to “boost our courage and scare others.”⁶⁹ This statement was the first conceptual inkling of what would later come to serve as the core of China’s policy of minimal deterrence.

The potential power of deterrence was clarified the following year by the faint radio transmissions of Sputnik, the launch of which on 4 October 1957 demonstrated the ability of the USSR to deliver a nuclear weapon virtually anywhere in the world, and in a matter of minutes rather than hours, as was the case with air-breathing bombers. The Soviet development and evolutionary improvement of a true inter-continental ballistic missile (ICBM) capability was probably the key topic of conversation during the Moscow summit in November 1957, when Mao met Khrushchev and sought from him further assistance in China’s own pursuit of the Bomb. While the meeting appears to have been cordial, and while Moscow still seemed willing, even at this late date, to allow China to attempt to exploit the logical consequences of Soviet advances and political acts, it is most unlikely that Mao was able to obtain any firm guarantees “that Khrushchev was prepared to place the Soviet deterrent power at the service of Chinese military ambitions.”⁷⁰

In the months following the summit there was a marked change in Chinese public discussion of nuclear weapons. Among other novel initiatives, Chinese officials began to posit an internally contradictory state of affairs, acknowledging that China would be in possession of nuclear weapons in the near future, and at the same time advocating the creation of an Asian nuclear weapons-free zone (NWFZ). Public messaging was by no means evenly distributed or even consistent; while Politburo and Foreign Ministry officials were touting China’s benign intentions, military newspapers had adopted a more bellicose tone. In 1958, for example, the commander of the PLA Air Force (PLAAF) published an article stating that China would soon be able to “use atomic weapons and rockets...in coping with the enemies who dare to invade our country and undermine world peace.”⁷¹

While such military and political postures may seem mutually incompatible, the incompatibility is not surprising given the context in which they evolved. The offshore islands crisis in the Taiwan Strait in 1958, in which Moscow declined to back Beijing’s play, demonstrated the fickleness of fraternal socialist sentiment. From a strategic perspective, the crisis tested whether the Soviet deterrent would be sufficient to dissuade the US from using tactical nuclear weapons, enabling China’s conventional forces to execute their mission without significant interference. The fact

⁶⁸ Hsieh, *Communist China’s Strategy in the Nuclear Era*, 168.

⁶⁹ Lewis and Xue, 548.

⁷⁰ Hsieh, “Communist China and Nuclear Warfare”, 7.

⁷¹ Hsieh, “Communist China and Nuclear Warfare”, 8.

that China's operations never passed the nuclear threshold suggests either that China was not prepared to accept the risk of nuclear strikes; that the Soviets were unwilling to let matters deteriorate to the point where a deterrent threat would have to be engaged and acted upon; or both.⁷² From Beijing's perspective, none of the possible conclusions were comforting. The fundamental strategic problem was no longer one of legitimacy, aspirations, foreign recognition or development, but a new, two-fold dilemma: first, whether Soviet military (especially nuclear) power could be relied upon to deter the US from launching an unprovoked attack against China (admittedly a low-probability scenario); and second, whether the USSR was prepared to wield its nuclear capability to support Beijing's foreign policy objectives – not only to resolve local and neighbouring disputes, but also to underwrite Chinese communist revolutionary activity in Southeast Asia and elsewhere.⁷³ The 1958 Quemoy-Matsu crisis demonstrates that the answer was, in all probability, no.

This fact, now come to the fore, meant not only that China would have to develop its own nuclear weapons if it needed to be able to rattle a nuclear sabre, but also that it would have to develop strategies to determine when and how loudly the sabre should be rattled (and for that matter, when and how it should, if necessary, be drawn). The fact that discussion of the utility of nuclear weapons in war had been deliberately muted during the 1940s and early 1950s did not prevent military and political strategists from thinking and writing about them. By the late 1950s, there were two principal Chinese schools of thought on nuclear strategy: the Ministry of Defence school, which continued the Maoist strain and assumed that wars would be protracted and could be fought by mobilizing reserves and resources after conflict had begun; and the General Staff school, which, schooled in Soviet doctrine, had adopted the USSR's new, evolving perspective that wars would be fought with forces-in-being rather than after a period of mobilization; and that China, therefore, required not poorly-armed and lightly-equipped mass levies (the "millet and rifles" army that Mao had led to victory), but rather "a well-trained and well-equipped standing army, a strong air force, and adequate air defence systems" in order to "reduce China's vulnerability to a first blow."⁷⁴

Neither the divergence of opinion between the Ministry and the General Staff nor the likely implications for China's armed forces of differences in perspective were surprising. It is not unusual for generals to want to trade huge numbers of mediocre troops motivated by ideological fervour for smaller numbers of more professional, better-trained troops motivated by loyalty, sound leadership, and nationalism. This fact notwithstanding, there were genuine differences between the two philosophies, and the dispute was in many ways a conflict between ideologies that pitted the Ministry's Mao-inspired People's War (*renmin zhanzheng*) against the General Staff's Soviet-inspired, well-trained and well-equipped professional force model. The two approaches, it must be noted, proceeded from different assumptions. The Ministry assumed that the China-USSR alliance would continue, and that, recent contretemps notwithstanding, Moscow would still be willing to extend the Soviet nuclear deterrent umbrella to China. The General Staff, by contrast, were less sanguine about Russia's reliability as an ally, and downright pessimistic about the extent and durability of Moscow's commitment to its putative allies. Viewed from a

⁷² Hsieh, "Communist China and Nuclear Warfare", 8-9.

⁷³ Alice Langley Hsieh, "Communist China's Military Policies and Nuclear Strategy: A Statement made before the Subcommittee on Military Applications of the Joint Committee on Atomic Energy", November 7, 1967 (Santa Monica, Ca.: The Rand Corporation, 1967), Report #P-3730, 6.

⁷⁴ Hsieh, "Communist China and Nuclear Warfare", 4.

perspective of bureaucratic politics, the disagreement also provided an opportunity for resolving a bureaucratic disagreement about who was empowered to set the direction for the PLA: the Party, or the commanders.

Hindsight permits the analyst to view policy decisions through the lens of subsequent events, and thus entitles us to judge the validity of those decisions on the basis of how well they allowed those on whose behalf they were taken to weather the storms of history. By this measure, it seems that the Ministry position was based less on a shrewd analysis of emerging trends than on wishful thinking. The Ministry, for example, had gravely misunderstood the US decision not to use nuclear weapons either in Korea, or during the 1958 Quemoy-Matsu crisis.⁷⁵ China's communist leadership seems to have misinterpreted as reticence, cowardice or incapacity a series of political decisions that, if the records of the Truman and Eisenhower Administrations are accurate, appear to have been taken largely on a basis of operational, moral and humanitarian motives. Similarly, the Ministry considered that its interpretation was reinforced by Russia's large-scale tests of thermonuclear weapons during the period 1955-58,⁷⁶ perhaps on the assumption that these weapons enhanced the frightfulness of the Soviet deterrent force to the point that no rational actor would ever consider risking a retaliatory attack. No allowance appears to have been made by the Ministry for the self-deterring effect of these dreadful weapons; for the fact that America had them, too; or for the possibility that Soviet leaders might be unwilling to risk the obliteration of Moscow in order to support a Chinese foreign policy objective that offered few potential benefits to the USSR.⁷⁷

The key problem with the Ministry's philosophical approach to nuclear "extended deterrence" was that it was fundamentally contradictory. It was an ideologically sound approach, to be sure, one that depended on the existence of fraternal socialist sentiment, the continuity of the 'communist bloc', and its expansion into something of greater international consequence, and continued Sino-Soviet rapprochement. But all of these were merely the forms of cooperation. The substance of the partnership between Moscow and Beijing was little more than Chinese dependence on Soviet largesse and a continued willingness by the USSR to engage in extended deterrence. This was never likely, for the simple reason that China and the USSR shared neither a single set of vital strategic interests, nor a single, unified appreciation of the threats to those interests, and what to do about them; and the collapse of the Ministry viewpoint became manifestly clear when Moscow refused to support China's play in the Taiwan Strait. It was driven home with the suspension of Soviet aid to China's nuclear weapons programme in 1959, and cemented by the termination of that aid in 1960.

One consequence of the realization that China, if it wanted to 'go nuclear', would have to do so alone was a brief but memorable return to the earlier, dismissive style of rhetoric about nuclear weapons that had characterized Mao's statements in the immediate post-war years. Mao himself published a paper entitled "Imperialists and All Reactionaries are Paper Tigers", arguing that the enemy should be "strategically despised but tactically respected"⁷⁸ – a difficult tightrope to walk, as it was the tactical effects of the "despised" enemy's military capability that would, in a

⁷⁵ Mulvenon, 243.

⁷⁶ Hsieh, "Communist China and Nuclear Warfare", 5.

⁷⁷ It is worth noting that the General Staff's position was borne out by the results of the Cuban Missile Crisis in 1963. However, by then the point was moot, as the PLA had been brought firmly back under the Party's control.

⁷⁸ Hsieh, "Communist China and Nuclear Warfare", 9.

conflict, be most obvious to China's population. It was a tacit acknowledgement that China could not hope to offset the military advantages enjoyed by the US without acquiring its own nuclear weapons. The decline in relations between Moscow and Beijing and the economic and industrial consequences thereof were equally visible in China, and were driven home with a vengeance when, in 1959, the Soviets intimated to Ambassador Harriman that the USSR would consider lending "military assistance" to Taiwan in the event of a confrontation.⁷⁹

The period from 1960 to 1964 proved challenging for China's weaponeers. The pressure was significant; Beijing acknowledged in 1961 that "a strategic air attack could be enormously destructive to urban, military and economic targets and that the effectiveness of their defense against a surprise attack was the key to their effectiveness in the next phase of the war." In doing so, Hsieh notes, Beijing not only at long last acknowledged that nuclear weapons could be decisive (a far cry from the "paper tigers" of prior pronouncements), but that they could also prove decisive in the initial phases of a nuclear conflict.⁸⁰ This was a blow to the heart not only of China's strategic stability, but of People's War itself, which was predicated on the concept of a prolonged conflict. This would prove to be a strategic and doctrinal watershed, the implications of which will be discussed in greater detail further along in this paper.

It took China's nuclear weapon designers some years to overcome the lack of Russian assistance, but they managed to do so. They had a number of advantages, not least of which was the knowledge that the feat had already been accomplished by four other states. The teams engaged in working on the bomb also received special privileges; Deng himself is reported to have told the development teams that they could take credit for their successes, and blame their failures on the Party Central Secretariat.⁸¹ No doubt such an uncharacteristically liberal approach had a positive effect on the project.

China detonated its first fission weapon on 16 October 1964. In the wake of the detonation, Beijing released a lengthy statement to the world which, according to two analysts, offers "a fascinating window into China's conflicted attitude about nuclear weapons.

It is riddled with internal contradictions and dialectical mindbenders. It strains credulity, for instance, that the Chinese would have spent an enormous amount of scarce state resources to build a weapon that is explicitly labelled as a 'paper tiger'. If atomic weapons were a paper tiger, it is difficult to fathom how nuclear weapons will provide 'defense' and 'protect the Chinese people from US threats to launch a nuclear war'. Moreover, the official insistence that China developed nuclear weapons in order to aid the global disarmament of nuclear weapons seems disingenuous at best.⁸²

All true. The error in this assessment, however, lies in trying to interpret the 1964 statement as anything more than an exercise in declaratory policy – which, as I have already noted, is often little more than a polite euphemism for propaganda. The statement suggests that China, even after

⁷⁹ Hsieh, "Communist China and Nuclear Warfare", 10.

⁸⁰ Alice Langley Hsieh, "Communist China's Military Policies, Doctrine and Strategy: A Lecture Presented at the National Defense College, Tokyo, September 17 1968" (Santa Monica, Ca.: The Rand Corporation, October 1968), Report #P-3960, 13-14.

⁸¹ Lewis and Xue, 541-542.

⁸² Mulvenon, 247.

detonating its first nuclear bomb, still had not successfully reconciled its strategic interests with its goal of becoming a nuclear weapon state. This may be true, but even if it is, it is largely irrelevant. China's communist leaders had a great many reasons for 'going nuclear', and none of them required that Beijing be in possession from the outset of a consistent, comprehensive and coherent nuclear strategy. These things were nice to have, and would be necessary in the fullness of time, but for the time being, the only thing China really wanted or needed was the Bomb. The mushroom cloud over Lop Nur was all the statement that was necessary – and those to whom it was addressed received its message loud and clear.

2.3.2 Reconciling 'People's War' with the new nuclear reality

A little more than two years after conducting its first nuclear test, China executed its sixth, air-dropping its first thermonuclear device from an H-6 bomber over Lop Nur on 17 June 1967. This weapon – based on the Teller-Ulam radiation implosion design first tested fifteen years earlier in the US, and using a U-235 fission primary, Lithium-6 Deuteride as fusion fuel, and a U-238 tertiary jacket – achieved a yield of 3.3 megatons, informing the world that China now had the ability to build and deliver thermonuclear explosives. In a moment of frank honesty, the Second Ministry's Vice Minister, Liu Xiyao, acknowledged that the Chinese had had an easier time building the H-bomb because the US, Russia, Britain and France had already done it, and the Chinese scientists struggling to mimic the achievements of their forebears "knew what kinds of materials should be used to carry out thermonuclear fusion...and commanded the necessary fundamentals."⁸³ These facts notwithstanding, going from a standing start to a working nuclear weapon in only six years, and then from there to a fusion weapon in only two and a half years, remained unquestionably a remarkable achievement for China's physicists and technologists.

The official communiqué issued by the Politburo in the wake of the test repeated the same official line used two years earlier: the bomb was "entirely for the purpose of defence, with the ultimate aim of abolishing nuclear weapons." This time, the statement added the Maoist principle that "Man is the factor that decides victory and defeat in war," and that "[a]tom bombs, guided missiles and hydrogen bombs, all in all, are nothing much to speak of."⁸⁴

While the tenor of such a statement is reminiscent of the writings of Sun Tzu and the other philosophers whose works coloured China's strategic culture, such manifest disdain for what was in reality a significant achievement by a state still struggling to realize the full scope of the industrial revolution rings a little hollow. China, after all, had just spent the better part of a decade engaged in a crash programme to match the most significant military-technological achievement of the US and USSR. Their subsequent denigration of this achievement must be understood in the context of the time, which was characterized by a variety of interacting strategic and socio-cultural currents.

China had only just recently begun to recover from the catastrophic social and economic consequences of Mao's abortive Great Leap Forward (1958-1960), and the equally convulsive but ideologically quite different Great Proletarian Cultural Revolution (1966-1976) had, by the time of China's H-bomb test, only just got underway. A key feature of this latter phenomenon, at least during the early 'Red Guard' phase was a conscious, vociferous and often violent rejection of

⁸³ Lewis and Xue Litai, 545.

⁸⁴ Lewis and Xue Litai, 546-47.

anything associated with suspected ‘bourgeois’ penetration and subversion of the principles of Chinese communism. An inevitable consequence of the vehement rejection of ‘bourgeois’ values was the tendency to tar anyone, regardless of the impeccability of their ideological credentials, who possessed advanced education or technical skills – especially if they had acquired that education or those skills in the West (as was the case for virtually every senior scientist associated with China’s nuclear weapons program – a point that will be investigated in greater depth further along in this study).

It is difficult to reject scientists and technologists without rejecting science and technology, and the Cultural Revolution, by the time it ended in the mid-1970s, had had as profoundly deleterious an impact on China’s scientific community and endeavours as Stalin’s purges had had on the Red Army, or Lysenko’s pseudo-science on a generation of Soviet biologists. The effects were felt not only in the nuclear weapons programme (which had, in any event, reached its apotheosis with the 1967 test) but also in the ballistic missile programme, which was nowhere near as advanced, and which – as a consequence of the upheavals – was destined to be set back by a decade or more. Against the convulsive backdrop of such events, the abrupt dismissal of the nuclear weapons that China had worked so hard, and sacrificed so much, to build becomes a little easier to understand.

The travails of Mao’s social engineering aside, there was another more profound factor at work that tended to compel China’s political and military strategists to adopt a dismissive attitude vis-à-vis the new weapons. Here again we must return to an examination of the deeper currents of Chinese strategic thought. Official statements emphasizing the primacy in war of men over material are to be expected on the part of a state that has a great many of the former, and a distinct paucity of the latter; however, as already noted, such aphorisms are also to be expected when they form a significant part of the foundation of the state’s strategic culture, both the ancient aspects thereof, as expressed by Sun Tzu and others, and more modern precepts, e.g., Mao’s theory of People’s War. One analyst far suggests that

China’s strategic thought divides into Military Doctrine (*Junshi Xueshuo*) – better known as People’s War – and Military Science (*Junshi Kexue*)...Within this framework, Strategy belongs to Military Art (*Junshi Xueshu*), the most important branch of Military Science...⁸⁵

Such a hierarchical ordering helps to explain where People’s War fits in the pantheon of military thought. It also explains the origins of “misperceptions about the obsolescence of People’s War.” According to Tan, these “derive from a confusion between Military Doctrine and Strategy.”⁸⁶ Or to put it in simpler terms, ‘military strategy’, by this formulation, is how the political authorities structure an overall political-military response to a military problem (e.g., a rebellious province, or an encroaching adversary). One aspect of that response could involve fighting. ‘Military doctrine’ is how the fighting would take place. At the time of China’s first nuclear test detonations, that doctrine was People’s War.

This biaxial understanding of the dividing line in Chinese thought between doctrine and strategy has been noted and commented upon by numerous authors. Some, like Georges Tan Eng Bok, prefer a clean and distinct break between the two. Others argue that trying to force doctrine and

⁸⁵ Tan, 6-7.

⁸⁶ Tan, 6-7.

strategy into crisply delineated pigeon-holes risks severing the often intangible but very real arteries of influence between them. Paul Goodwin, for example, argues that while People's War is "not a strategy",

None the less, thinking in terms of People's War and trying to modify Mao's concepts of war and strategy does not necessarily highlight the demands of two- and three-dimensional warfare. The Janus-like quality of the Chinese military establishment reflects the tension between these two approaches to war and strategy.⁸⁷

To Goodwin's point, it is more accurate to approach strategy and doctrine as opposite but interdependent faces of the same coin. This paradigm is better suited to the present study than that advanced by Tan, as it more closely reflects the manner in which China's strategic thinkers approached the problem of what to do with the new weapons. Instead of developing new and unique strategies for nuclear use, the new weapons were, to the greatest extent possible, to be incorporated into People's War doctrine. This approach, one notes, would in addition to simplicity have had the added attraction of ideological orthodoxy – not an insignificant consideration at a time when the Red Guards were denouncing anyone or anything that smacked of 'bourgeois' influence as an enemy of the proletariat.⁸⁸

Incorporating nuclear weapons into conventional doctrine proved to be somewhat more complicated for China's strategic thinkers than it had been for the strategists who had devised the Pentomic Division concept in the US a decade earlier.⁸⁹ US Army conventional military doctrine was in large part an outgrowth and refinement of the operational art that had won victories against stiff resistance in Italy, Northern Europe, and the Pacific. At the risk of oversimplification, the American 'way of war' consisted by V-J Day of the use of overwhelming fire support, much of it air-delivered, to facilitate rapid mechanized and motorized advances by ground troops. Against this conceptual tapestry, nuclear weapons, variable in size and yield, might be deemed to be nothing more than super-heavy artillery. Under the nuclear war-fighting doctrine that the US military devised for the central European front, nuclear weapons would be used first to blunt a Soviet mechanized attack, and then, once the enemy's advance had been halted, to facilitate breakthrough thrusts by NATO's small, professional, highly-trained and well-equipped armoured formations in order to re-establish the antebellum frontier. Such a war would ideally be executed swiftly, and terminated equally swiftly.

This operational doctrine was the antithesis of People's War which, in Mao's formulation, saw large numbers of quickly-raised, adequately-equipped troops with limited training (but motivated by a surfeit of ideological fervour) falling back before a concerted assault, trading space for time, ceding cities to the enemy, and re-conquering lost territory in due course via protracted guerrilla warfare. Such an operational doctrine at first glance leaves very few practical roles for nuclear weapons. Apart from using them to blunt an enemy's initial strike, a strategy based on the principle of *réculer pour mieux sauter* (withdrawing to improve one's point of departure for subsequent operations) would ensure that the majority of the resulting nuclear detonations would

⁸⁷ Goodwin, 48.

⁸⁸ Mention of the classical military and political philosophers in Chinese literature naturally plummeted during this period; see Annex A.

⁸⁹ Neill, *Background and Benchmark*, 9-10.

occur either on the land that one has traded for time, or in the cities that one has ceded to the enemy. Tactical nuclear warfare, in short, is counter-indicated when one's operational doctrine contemplates fighting a protracted war on one's own soil.

Mao's guided evolution of the People's War doctrine derives from the two decades worth of experience he gleaned while fighting a guerrilla version of the *levée-en-masse* against more professional, better-equipped opponents. It would be unjust to refer to People's War as a 'theory', as its precepts were repeatedly put to the test, and its subordinate doctrines of protracted conflict, abandonment of cities, and 'human factors' as the key to overcoming an enemy's technological advantages were all trialled heavily in actual combat. This latter principle, which featured so prominently in Beijing's post-detonation communiqués, is itself a key facet of People's War. There are likely a number of reasons that it features so prominently in both China's conventional and its nuclear doctrine. While the origins of the primacy of men over machines indisputably lie with the ancient philosophers, such declamations serve an important motivational role; from a perspective of propaganda designed to buttress or enhance national morale, it is entirely understandable that politically astute leaders would sternly denigrate the importance of having good equipment when addressing a force that was itself chronically underequipped.

There are other differences than merely equipment between conventional Western military forces and an army structured in accordance with the People's War doctrine. People's War, Tan argues, "differs fundamentally from ancient Chinese warfare in relying on organised armed forces under a 'centralized strategic command'."⁹⁰ The organization is perhaps a natural and unavoidable consequence of the sheer size of a 'People's Army'; there would be no question of employing organizational principles suited to Sun Tzu's time to raise and employ an army numbering in the millions. Or the tens of millions; China may be the only state in the world where the capacity for total societal mobilization actually matches the rhetoric of the popular *levée*, which, as Mao put it, urges the proletariat "to 'drown the enemy in the ocean of People's War'.⁹¹"

If such an army could not be created or sustained entirely according to ancient principles, it could not be fought according to them either. Sun Tzu, for example, praised the general who employs "blundering speed" over protracted warfare, arguing that prolonged combat never benefits the state. Mao, by contrast, relied on his experience as a revolutionary leader during a period of guerrilla warfare. Knowing the fragility and capabilities of his army, and understanding the larger political problem that he faced – which was that a single serious defeat would spell the end of his ambition of founding a People's Republic – he largely eschewed "blundering speed", instead, as noted above, advocating the exchange of land for time. In addition to preserving his own force and granting him the time to improve its equipment and training, heaping delay upon delay served an important ideological purpose; it allowed a large margin of time to ensure that the internal contradictions of the capitalist hegemonist armies would be exposed, hastening their inevitable collapse. This latter facet of the People's War doctrine was likely the source of inspiration for Defence Minister Lin Biao when in 1963, quoting Mao, he wrote "[t]he spiritual atomic bomb which the revolutionary people possess is a far more powerful weapon than the physical atomic bomb."⁹² Once again, what sounds to the military historian like typical revolutionary bluster

⁹⁰ Tan, 6.

⁹¹ Goodwin, 38.

⁹² Mulvenon, 242.

should not be dismissed out of hand, because however baldly the sentiment might have been expressed, it was unquestionably grounded in sound military experience.

As China entered the nuclear age and the Cultural Revolution raged, attempts to adapt Mao's quintessentially guerrilla doctrine to the realities of modern mechanized and nuclear conflict came a cropper. A large part of the problem was the lack of a galvanizing threat. The US and its NATO allies had no difficulty imagining the sort of war they would be most likely to fight in the immediate future; the Inner-German Border, the Iron Curtain, the concrete reality of the wall bifurcating Berlin all were clear indications of where the first shots in the inevitable east-west clash were likely to be fired. China, grappling with the problem of transforming Maoist military doctrine (in an age when any deviation from Mao could easily result in denunciations, beatings or even death at the hands of the Red Guards), had no such strategic waypoints to fall back on. Despite the distinct chill in Sino-Soviet relations since the late 1950s, it had become painfully obvious that the USSR was unlikely to attempt to invade.⁹³ The Soviets, for all their faults, had no desire to conquer China, much less attempt to rule it. As was the case with India, and as would later prove to be the case with Vietnam and various offshore territorial disputes with Japan and others, all that China's potential adversaries desired were modest and limited territorial concessions. People's War contemplated answering conventional threats by falling back, defending in depth and trading space for time; but while this was demonstrably effective in a civil war context, and would likely have been China's best option in the face of a land invasion and an existential threat to the regime and state, when the enemy is merely seeking limited border objectives, falling back only gives him what he wants without forcing him to fight for it.

Some recognized that the problem was in reality two-fold. People's War was poorly adapted to modern military realities not only because the doctrine itself advocated responding to threats by taking steps that would be demonstrably contrary to China's strategic interests; it was also problematic because, for psychological and political reasons, it denigrated and minimized the importance of modern military equipment. In the atmosphere of the 1960s, as noted above, it took genuine courage to question any aspect of Mao's political, military or social doctrine; but this did not mean that the PLA still did not need to be better equipped. Lin Biao, as Defence Minister, took steps to rectify that part of the problem, crafting what he termed a "balanced strategy" consisting of "a modified concept of People's War...associated with a slow, self-reliant modernization process." Goodwin opines that this approach meshed with Mao's policy of "walking on two legs," but hastens to add that Lin's approach led to a schism in which strategy and military modernization were often treated as two independent parts of should have been one debate.⁹⁴

This "two legs" approach worked well enough to contemplate the beginnings of a process of conventional force modernization but it still did not offer much insight into the problem of integrating nuclear weapons into People's War. The result was a blended, largely ideological doctrine that was rife with internal contradictions. Lewis and Xue have pointed some of these out.

⁹³ Goodwin, 39.

⁹⁴ Goodwin, 48.

...the weapons that would thwart imperialism were nothing much to speak of; the weapons of a new stage would simply reaffirm older ideas; and the weapons made by experts were embraced by extremists making war on experts.⁹⁵

To this we may add the arguments that China had just spent a decade and a great deal of capital to produce a weapon that its leaders deemed a “paper tiger” (but which would, nonetheless, “protect...the Chinese people from US threats to launch a nuclear war”); and that China was developing nuclear weapons in order to eliminate nuclear weapons.⁹⁶

The opposing currents of strategic thought and political ideology (which had itself been transformed by the Cultural Revolution into dogmatic anti-intellectualism) made it difficult for any would-be strategic thinkers to try to develop a coherent or internally consistent strategy. The result was a weapon without a purpose. Without a long-range delivery system, China’s nuclear weapons could not be deemed a strategic deterrent, except perhaps vis-à-vis their supposed fraternal socialist brethren in the USSR; and at the tactical level, there seemed to be no way to integrate nuclear weapons into operational doctrine other than in the context of a land invasion that was in no way credible. It was only at the theatre or regional level that China’s slowly-expanding nuclear arsenal might have been useful as a lever to threaten or influence adversaries like India and the Nationalist government in Taiwan, or key American allies like Japan and the Republic of Korea (ROK). This nascent deterrent role was likely reinforced by Beijing’s post-detonation promises never to threaten any state, and eschewing for all time the first-use of nuclear weapons.

China’s nuclear weapons did, however, serve an important political purpose: they announced to the four existing NWS that China now had to be taken seriously. While by no means the only (or even most significant) factor that contributed to the UN’s 1971 decision (via Resolution 2758 of the UN General Assembly) to withdraw recognition from the government of the Republic of China and transfer it to the government of Mao’s People’s Republic, China’s demonstrated nuclear capability certainly loomed large on the international stage. No adaptation or amalgamation of nuclear and conventional military doctrine was required in order to effect this primordial political transformation; all that was necessary was an explosion. China’s nuclear weapons programme had achieved its most important purpose – a fundamentally political purpose – without any requirement for a delivery system at all.

The death of Mao in September 1976, followed by the purge of the Gang of Four and their supporters in the months that followed lifted the obligation for doctrine to genuflect to philosophical orthodoxy and allowed – to use Freedman’s phrase – the “mystical elements of People’s War” to at last be done away with.⁹⁷ Pragmatism gradually seeped into the planning and doctrinal development processes, and the PLA turned to the practical problems of defending China in the nuclear age. Conventional doctrine suffered another body blow as China’s missile programme began to recover from the purges of the Cultural Revolution and the period of

⁹⁵ Lewis and Xue, 547.

⁹⁶ “The Atomic Bomb: Statement of the Government of the People’s Republic of China, October 16 1964”, [[http://china.usc.edu/\(Seabjcp45mezq23d4vqofq55\)A\(MHBBYRT6ywEkAAAAOWRiZGVIZTEtN2E3ZC00MGRILTg1ZDQtOWU0NzBmYTVhY2NkyyOypjkLzwk8RXruDub1OMRYU-o1\)/ShowArticle.aspx?articleID=2290&AspxAutoDetectCookieSupport=1](http://china.usc.edu/(Seabjcp45mezq23d4vqofq55)A(MHBBYRT6ywEkAAAAOWRiZGVIZTEtN2E3ZC00MGRILTg1ZDQtOWU0NzBmYTVhY2NkyyOypjkLzwk8RXruDub1OMRYU-o1)/ShowArticle.aspx?articleID=2290&AspxAutoDetectCookieSupport=1)]. Accessed 10 February 2011.

⁹⁷ Lawrence Freedman, *The Evolution of Nuclear Strategy*, 3rd Ed. (New York, NY: Palgrave Macmillan, 2003), 266.

disruption that followed, as China's new, longer-range ballistic missiles began to achieve first theatre and finally true intercontinental ranges. These developments were all that was needed to transform China's nuclear weapons into the beginnings of a strategic deterrent – which naturally called into question the future utility of People's War writ large.⁹⁸ After all, what use was a last-ditch national defence doctrine when there was no evident threat of an invasion – and when, even if there were, any would-be invader could be deterred via the threat of nuclear reprisal?

Rather than abandon outright the strategic legacy of the founder of the People's Republic in the years immediately following his death – which would have been problematic in any state, let alone a communist state where legitimacy derives in large part from perceived continuity of leadership, and let alone in a traditionalist society that places high value on respect for the nation's philosophical forebears – China's political and strategic theorists embarked on a programme of rationalization designed to salvage the useful aspects of People's War and adapt them to the new strategic reality. This consisted, in essence, of deriving from Mao's doctrine the essential elements applicable to the operational employment of what had hitherto been a purely political weapon. One Chinese strategist summarized Mao's understanding of People's War in a nuclear context as “fighting sooner, fighting on a larger scale, and fighting a nuclear war.”⁹⁹ While the latter two principles ring true (People's War was nothing if not 'large scale'), while the strategic use of nuclear weapons in tactical scenarios represented an approach similar to that adopted by the US Army in the 1950s), the notion of “fighting sooner” owes more to Sun Tzu's “blundering haste” than it does to Mao's principle of trading space for time. Apparent contradictions notwithstanding, such distillations moved the process forward, and by the late 1970s Chinese strategic thinking had undergone a vital and long overdue transformation, shifting “from People's War to people's *nuclear* war under modern conditions.”¹⁰⁰

It was not an easy transition. A large part of the problem stemmed from the fact that, in the run-up to its first test detonation in 1964, China had been heavily reliant on its Soviet ally not only for military and technical assistance, but also for the training of military personnel and political thinkers. The last generation that had passed through Soviet indoctrination (the ones that survived the Cultural Revolution, at least) were those now guiding the Party and attempting to craft its military and political doctrine. China's strategic thinkers, though, had never fully come to grips with the Soviet approach to military doctrine and nuclear strategy, principally because Soviet military doctrine was difficult to reconcile with Mao's military philosophy. This in turn was due to the very different roots of the Soviet and Chinese military experience, especially during the Second World War. Mao's revolution had faced the dual threats of the Japanese domination of Manchuria and the Republican forces, and had triumphed through delay, denial, indirect guerrilla warfare and the clever and cautious use of very limited resources. As Hsieh notes, this experience had given Chinese strategists a preference for “low level conflicts, national liberation wars, where indeed man, his morale and organization, would be superior to weapons.”¹⁰¹ The USSR, in stark contrast, had faced down and defeated the Nazis through superiority in industrial capacity and manpower, recovering from initial losses with startling rapidity, and crushing the invasion force-on-force in the largest land battles ever seen. The Soviets, through their military doctrine, had

⁹⁸ Goodwin, 38.

⁹⁹ Schneider, 248.

¹⁰⁰ Schneider, 253. Emphasis added.

¹⁰¹ Hsieh, “Communist China's Military Policies, Doctrine and Strategy”, 12. Hsieh also notes that this is merely a “preference”, and should not be interpreted as an ideological aversion to using nuclear weapons.

taken *blitzkrieg* and made it their own. It is an aphorism of military operations that without morale, an army is nothing; but no soldier that had fought at Kursk could seriously entertain a military philosophy that argued that machines were less important than men.¹⁰²

The problem was that, their one-time alliance notwithstanding, Soviet and Chinese military doctrines were incompatible. Mao's doctrine had emphasized "protracted war, strategic withdrawal, and the subordination of purely military considerations to the political-military-economic objectives of the revolution."¹⁰³ None of these principles were suitable to the nuclear age. Chinese thinkers steeped in Maoist thought had difficulty crediting the notion that a war's outcome could very well be decided in its opening phase, if not by an opening blow, long before the strengths of People's War in protracted conflicts could be brought into play.

The result, as with any process of rationalization, was a gradual redefinition of what Mao had really meant. Tan, for example, writing in 1984 when this process was well under way, argued that Mao's "man over material" principle really meant the "primacy of men over weapons," which in turn was an allegorical means of stating that, in war, politics take precedence over purely military considerations.¹⁰⁴ This, though, was nothing new; it was merely a restatement of Clausewitz's interpretation of war as the continuity of interstate politics. For that matter, it might also be considered a variation on Sun Tzu, who placed "the moral law", which "causes the people to be in complete accord with their ruler", at the head of the "five constant factors" that determine the conditions under which war will be fought.¹⁰⁵

Such gradual refinements and redefinitions of what Mao had meant were hardly revolutionary. But they were a start.

2.3.3 Breaking with Mao

The transformation of People's War into "People's War under modern conditions" that took place in the late 1970s and early 1980s consisted, according to one author, of four key alterations to Mao's military philosophy. The first was the abandonment of the principle of trading land for time. Under the new doctrine, instead of drawing the enemy into the heartland, he would be defeated close to the border. Second, protracted war – the strength of Mao's doctrine – was no longer seen as supreme. Commitment to long war became less dogmatic; and instead of downplaying the importance of early battles, the possibility that a war might be won by a decisive blow in the opening stages was once again taken into consideration. Third – perhaps in a nod to the history of military operations outside of China during and since the Second World War – Mao's concept of a "fluid front" was downplayed, and positional warfare was once again seen as important. Fourth, where Mao had advocated abandoning cities to seek refuge and fight in the countryside, "modern conditions" meant that cities had now to be defended instead of abandoned. Finally, Mao's concept of "deterrence through denial" (which might best be described as ensuring

¹⁰² The same principle was reflected in the grim result of the CPC regime's crackdown on pro-democracy protestors in and around Tiananmen Square in 1989.

¹⁰³ Hsieh, "Communist China and Nuclear Warfare", 2.

¹⁰⁴ Georges Tan Eng Bok, 7.

¹⁰⁵ Sun Tzu, *The Art of War*, Chapter 1.

that there were no targets of sufficient value that the enemy might consider using a nuclear weapon against them) was replaced by a policy of deterrence through retaliation.¹⁰⁶

It is not often in cases of doctrinal evolution that the goad prompting change is so easily described. All of these transformations were long overdue, both as a result of rapid technological and social change in China, and also as a consequence of political change. By the time the Gang of Four were deposed and arrested, People's War was seriously out of step with societal trends. Plans for an agrarian society evolved as China became increasingly industrialized and urbanized, first as a matter of state policy, and later (with the relaxation of the Household Registration System in the 1980s) as a matter of individual choice. In the post-Mao years, Deng – cautiously at first, later more aggressively – emphasized industrialization and economic growth, the inevitable consequence of which was an even greater emphasis on China's urban centres (although he also exhorted senior PLA strategists to "study the ancient Chinese military classics" as a foundation for the drive for modernization).¹⁰⁷ A wealthy, industrial country cannot trade space for time in war; cannot abandon the cities that are the centre of its wealth and industry; cannot afford a protracted war that will eat away at its prosperity and infrastructure; and has too much to lose to pretend that is not just as subject to deterrence of its political ambitions as any other state. If that country is large and wealthy, then it can afford to equip its armed forces with more than 'millet and rifles' – and large, well-equipped armed forces do not fight guerrilla campaigns on a 'fluid front'.

All of this seems elementary to denizens of states that followed a different evolutionary trajectory from China. To a certain extent, while China joined the nuclear club in purely technological terms in 1964, and joined it in political terms in 1971, it did not join the rest of the NWS in terms of substantive interaction until some point in the late 1970s when the CPC, having divested itself of the hyper-orthodox agrarian predilections of Mao, began to contemplate an urbanized, industrialized future for China. States that have something to lose do not see nuclear weapons as "paper tigers"; they see them as both threat and insurance. Once China's leaders acknowledged that their goal was to grow their economy, to expand their cities, to lift their population out of abject poverty, and in short to build a nation that would have something to lose – then, and only then, did China's "small but usable strategic nuclear force"¹⁰⁸ finally begin to make sense.

Doctrinal transformation continued in the mid-1980s as the PLA's strategic thinkers grappled with the implied consequences of the declining threat of central European warfare, and the growing likelihood – as exemplified by the Soviet invasion of Afghanistan and, to a lesser extent, the British recapture of the Falkland Islands – of lower level warfare. NATO's response to these developments was to explore doctrine for "out-of-area" conflicts. China's thinkers perceived a similar decrease in the likelihood of a land invasion of China (which had never been likely in the first place), and – corresponding to a decline in US-Soviet tensions and a gradual increase in the effectiveness of arms control initiatives – a drop in the likelihood of a massive east-west nuclear exchange engulfing China. All of these trends, according to a 1982 article in a CPC journal, "presented new problems to the patterns, strategy and tactics of warfare as well as to military organization" of the PLA. The pressures of contemporary conflict, the author argued, were

¹⁰⁶ Nan Li, "The PLA's Evolving Warfighting Doctrine, Strategy and Tactics, 1958-95: A Chinese Perspective", *The China Quarterly*, No. 146 (June 1996), 443.

¹⁰⁷ Newmyer, 491.

¹⁰⁸ Nan Li, 443.

forcing the PLA into a near world of “readjusting, reorganising and restructuring.”¹⁰⁹ Beijing’s response was to reduce the emphasis on “People’s War under modern conditions”, and focus more on “fighting and winning all sorts of local war and armed conflict.”¹¹⁰

The strategists who devised the local war concept differentiated it from “major war” according to five fundamental differences. First, the objectives in a local war are limited, as are the means employed by the adversaries. Second, local wars tend to involve continuous negotiations, or, as then-Deputy Chief of the General Staff Xiong Guangkai put it, “Fighting is usually accompanied by talking.”¹¹¹ Local wars – unlike People’s War, which makes use of the whole national territory to absorb an enemy, and which is by definition protracted – tend to be constrained in space and time. They also, due to the limited nature of the events in question, tend to be impacted to a greater extent than major wars by domestic politics and world opinion.¹¹² They are likely to involve fewer troops and resources; and this fact means that the outbreak of a local war is far more likely to catch one side unprepared and incapable of organizing a counterattack. For this reason, local war doctrine prompted the (re-)introduction of the traditional military concept of “gaining the initiative by striking first” in anticipation of an attack by an adversary. In Western military parlance, this is generally termed a ‘spoiling attack’. Chinese military terminology dubs it a ‘defensive attack’, a term that takes on especial relevance when applied to nuclear strategy.

None of the characteristics of local wars posited by China’s military thinkers in the 1980s precluded exercise of the nuclear option; however, it was acknowledged that the threat or use of nuclear force would both violate the limited means criterion for local wars, and would likely elicit a backlash in both domestic politics and world opinion that could imperil the war effort. Where discussions of nuclear use in a context of “People’s War under modern conditions” had devolved largely upon where, when and what targets against which to employ the weapons, local war doctrine suggested that the most important question would likely be *whether* to use, or even threaten to use, nuclear weapons at all.¹¹³

Some vestiges of People’s War (and “People’s War under modern conditions”) remained in place in the new local war doctrine. Mao’s theory of conflict posited three stages to a military campaign: an enemy offensive, one’s own defensive efforts to absorb and halt the enemy advance, and one’s own offensive to recover lost territory. These stages were dubbed the “strategic defensive”, the “strategic counter-attack”, and the “strategic offensive.”¹¹⁴ Under local war doctrine, however, it seemed unlikely that the phases of battle would be so crisply delineated; the three stages would more likely be intermingled, creating a front that was fluid in temporal if not necessarily geographic terms. People’s War, as has already been noted, posited awaiting and absorbing an enemy attack, a counter-productive doctrine if delay permits the enemy to consolidate limited gains. In local war, it was argued, the enemy would be identified at the political stage of aggression, and the defender could attempt to prevent aggression through a spoiling (“defensive”) attack, “catching strategic initiative swiftly through offensive operation,

¹⁰⁹ Goodwin, 37.

¹¹⁰ Nan Li, 446.

¹¹¹ Xiong Guangkai, cited in Nan Li, 443.

¹¹² States understandably tend to be less concerned about international opinion when they are fighting for survival; it is only states engaged in limited conflicts that, for example, tend to accumulate “coalitions of the willing”, or seek UN sanction for their acts.

¹¹³ Nan Li, 449.

¹¹⁴ Nan Li, 452.

striking first, suppressing the enemy provocation in possibly the shortest time, setting back the enemy's aggressive attempt, and winning the war.”¹¹⁵ The concept of “striking first...at a time of restoring lost territories” seems particularly relevant to China’s primordial local war concerns, especially with regard to disputed islands, the conflicting land claims between China and India, and with respect to Taiwan.

Local war theory received a solid boost in 1990-91 when the swift and decisive victory by the US-led coalition in the Gulf War demonstrated the advantages to be gleaned from a combination of limited objectives, high-technology means, “new fighting styles,”¹¹⁶ and non-nuclear operations (but, obviously, under conditions of nuclear deterrence, especially in view of Washington’s none-too-subtle warning to Baghdad about the potential consequences of using chemical or biological weapons against Coalition forces). According to one analyst, Chinese strategists took the outcome of the Gulf War as proof of the “defensive attack” principle, arguing that the “highly lethal nature of a high-tech local war may render a more decisive edge to the side that launches a pre-emptive strike.”¹¹⁷ China’s generals and strategists seemed genuinely perplexed that Saddam, despite possessing the means to do so, declined to mount any serious interference with the long, slow and highly vulnerable Coalition build-up in Kuwait.

The Gulf War also demonstrated the potential value of evolving, information-based military technologies – a final nail in the coffin of the Maoist elevation of men over material (at least in the non-political sense). While the limited use of precision-guided munitions against targets in Kuwait and Iraq was the most widely-reported and spectacular display of US military advances, other innovations, especially the impact of Global Positioning System technology on manoeuvre forces, was if anything even more galvanizing. China’s military thinkers took the Gulf War not only as proof-of-concept for local war doctrine, but also as a demonstration of the importance of equipping its troops in accordance with new, information-based weapons and equipment in order to avoid being forced to return to People’s War by technological default. This realization put paid to the principle enunciated by Marshal Zhu De (commander in chief of the PLA from the mid-1950s to the mid-1960s) to the effect that the “kind of war to fight depends on what kind of arms we have.”¹¹⁸ The architects of the PLA in the post-Gulf War period understood that the opposite was true; that the kind of war you want to be able to fight is in fact the key determinant of the kind of arms you need to have.

The Gulf War launched a new and intensive examination by China’s defence and security community of the implications for China’s security of the so-called ‘revolution in military affairs’ (RMA). One of the concepts that emerged from this discussion was that of employing less advanced weapon systems in an unconventional manner to circumvent the advanced capabilities enjoyed by adversaries. As the millennium approached, Chinese articles began speaking of the “assassin’s mace” (*shashoujian*) concept, which in a military context boils down to using inferior technology in an innovative manner to obviate the technological and other advantages enjoyed by a superior opponent.¹¹⁹

¹¹⁵ Nan Li, 452.

¹¹⁶ Nan Li, 456.

¹¹⁷ Nan Li, 457.

¹¹⁸ Nan Li, 459.

¹¹⁹ *Shashoujian* translates as “killing hand sword.” Interestingly, in computing circles *shashoujian* is also used to mean “killer application.”

The “assassin’s mace” concept was not new, although it was a relative rarity in military and political Chinese journals before 1999. Its revival was seen as a natural adaptive outgrowth of the RMA.¹²⁰ *Shashoujian* does not translate readily into English, and the three characters – *sha* (杀), “kill”; *shou* (手) “hand” and *jian* (剑) sword, – has been variously translated to mean “killing hand-sword”, “killer mace”, and so forth. Jason Bruzzinski, suggests that there may be some linguistic and/or cultural justification for interpreting *shashoujian* to mean not only “assassin’s mace” but also, in a martial context, a “well-practiced technique or movement.”¹²¹

The idea of using a relatively primitive weapon in a long-practised and overwhelming spoiling (defensive) attack was a Chinese adaptation of the Western understanding of the RMA, which, in very general terms, saw advances in information technology as enabling wars to be fought with less violence, destruction and collateral damage. By contrast, Chinese analysts in 2002 were writing that “tests of atomic and hydrogen bombs, and successful launches of submarine launched and mobile strategic missiles, shows that our Army has ‘assassin’s mace’ to use in overcoming the enemy and achieving victory”.¹²² SLBMs and ICBMs are not battlefield weapons, nor are they likely to reduce the damage and violence of warfare. Such analyses clearly demonstrate that China from the outset viewed “assassin’s mace” as a fundamentally strategic concept. The basic principle was, of course, sound; a footpad with a bludgeon can easily overcome the most talented of rapier-armed swordsman, provided the former enjoys strategic surprise and is able and willing to strike first. The end result of this calculus was a partial (and perhaps only theoretical) repurposing of China’s nuclear arsenal; PLA wargames during the past decade, in accordance with the *shashoujian* principle, have largely envisioned the use of selected nuclear strikes as a means of dislocating enemy efforts and overturning enemy advantages in order to achieve victory on the battlefield “rather than the destruction of the world.”¹²³ To the extent that such wargames envision having to cope with incursions into Chinese territory, this would seem to suggest that China’s military planners have, if only in theory, come to terms with the problem, characteristic of defensive warfare, that tactical nuclear strikes – to paraphrase an old NATO definition – are most appropriately defined as those that occur on one’s own territory. One author has even noted that putting flesh on the skeleton of local war theory has involved “testing tactical nuclear weapons for possible application in a local war.”¹²⁴ The fact that the bulk of the nuclear tests carried out by China in the 1990s were of very low rather than high-yield devices supports this interpretation – as does the public acknowledgement that China has developed a miniaturized enhanced radiation weapon (ERW), or neutron bomb.¹²⁵

¹²⁰ Alastair Ian Johnston, “Toward Contextualizing The Concept of a Shashoujian (Assassin’s Mace)”, Harvard University, August 2002 [<http://www.people.fas.harvard.edu/~johnston/shashoujian.pdf>]. Accessed 10 February 2011.

¹²¹ Jason E. Bruzzinski, “Demystifying *Shashoujian*: China’s ‘Assassin’s Mace’ Concept”, in Andrew Scobell and Larry Wortzel, eds., *Civil-Military Change in China: Elites, Institutes and Ideas after the 16th Party Congress*, US Army War College, September 2004, 314. [<http://www.carlisle.army.mil/ssi>]. Accessed 11 February 2011.

¹²² Schneider, 250.

¹²³ Schneider, 252.

¹²⁴ Nan Li, 460.

¹²⁵ CNN World, “China Acknowledges Development of Neutron Bomb Technology”, 15 July 1999 [http://articles.cnn.com/1999-07-15/world/9907_15_china.bomb_1_neutron-bomb-bomb-technology-zhao-qizheng?_s=PM:WORLD]. Accessed 10 February 2011.

Like much of the rest of the world, China's military and strategic thinkers took a number of questionable lessons from the US decision to invade Iraq in March 2003. Perhaps not surprisingly – given its proximity to the Democratic People's Republic of Korea (DPRK), its central position in the Six-Party Talks aimed at eliminating the DPRK's nuclear weapons program, and its no doubt uncomfortable role as patron and sponsor to Pyongyang's mercurial and unsavoury regime – China viewed the invasion of Iraq through the prism of President George W. Bush's 2002 evocation of the “Axis of Evil”, of which select group the DPRK had been designated a charter member. Beijing could not help noting that the Kim regime's catalogue of iniquities at least equalled if not outweighed those of Saddam's Ba'ath Party, and concluded that “the only apparently credible way to deter the US would be to own your own nuclear arsenal.” The problem, Freedman goes on to note, was that the invasion also demonstrated that the length of America's arm and its unmatched conventional military virtuosity were now seemingly sufficient “to remove this as an option for all but a few.”¹²⁶

Iraq was not the only indicator of a shift in US priorities that caused Chinese strategic thinkers to review their assumptions about America's likely courses of action in the future. The Bush Administration in its early years took a number of other unprecedented steps that caught Beijing's eye. In 2002 Bush exercised America's option to withdraw from the ABM Treaty and, shortly thereafter, signed the Strategic Offensive Reductions Treaty (SORT) in Moscow. Bush subsequently pushed ahead with the deployment of a limited ballistic missile defence (BMD) system, placing ground-based interceptor missiles in Alaska and California, oriented along launch axes optimized to intercept ballistic missiles launched from North Korea – which, physics being what they are, meant that they could also intercept ballistic missiles launched from the Chinese mainland. Perhaps most alarming from Beijing's perspective was the publication in 2001 of a Nuclear Posture Review, leaked excerpts from which identified “a military confrontation over the status of Taiwan” as a “well-recognized current danger” that would have an impact on “sizing the nuclear force”; and designating China as “a country that could be involved in an immediate or potential contingency.”¹²⁷

All of these trends made it appear as though the Bush Administration was preparing for what it seemed to believe would be an inevitable confrontation with China. Beijing responded by increasing preparations, both strategic and practical, for local war contingencies, including a confrontation with the US, which would most probably result from tensions over Taiwan or as a consequence of some other regional dispute. As was the case with People's War, however, Beijing came to realize that its nuclear strategy – which since 1964 had been characterized as “minimum deterrence”, and which was based on a small-scale version of the assured destruction calculus that had characterized the whole of the US-Soviet nuclear relationship – might not be appropriate to the threat. The Politburo could characterize the Taiwan issue as one of primordial importance to the Chinese people (and it did), but it still demanded a certain leap of faith to accept as credible the notion that Beijing would respond to US assistance to Taiwan in time of crisis by launching a thermonuclear weapon at a US city, and risking an overwhelming and devastating response, imperilling all of the gains made since 1949. By the mid-1990s, some Chinese nuclear strategists were already trying to come to grips with this credibility gap and were pondering, amongst other things, a shift from “minimum deterrence” to a more “limited

¹²⁶ Freedman, 457.

¹²⁷ These excerpts are taken from a document posted on [globalsecurity.org](http://www.globalsecurity.org), a website run by John Pike. [<http://www.bits.de/NRANEU/docs/nprexc.pdf>]. Accessed 10 February 2011.

“deterrent” posture; but the proposals proved to be stillborn, as effecting such a shift would require “sufficient counter-force and counter-value tactical, theatre and strategic nuclear forces to deter the escalation of conventional or nuclear war” – and China’s own experts were quick to acknowledge that China did not possess “the operational capabilities to implement this vision of limited deterrence.”¹²⁸

The problem was that two decades after Mao’s death, three after its first nuclear detonation, and five after its founding, China was still struggling with conflicting military experiences and the strategic philosophies that had grown out of them. People’s War was a legacy of the revolution, a vital ideological touchstone for the regime, and an important cultural rallying point for the populace writ large. It could not simply be jettisoned; nor could it be retained in name only and drained of every sensible vestige of meaning. It had to be adapted to the realities of modern warfare – both the nuclear revolution that China underwent in the 1960s and 1970s, and the information revolution that galvanized military operations, organization and procurement in the 1990s and thereafter. At the same time, China’s strategists had to figure out how to make People’s War “under modern conditions” relevant to a rational and objective threat assessment. Dispersed, low-tech guerrilla warfare – as PLA strategists had recognized by the end of the 1970s – is not a particularly useful doctrine for an aspiring industrialized country that faces no serious threat either of external invasion or internal domination by a qualitatively superior force. China also had to come to grips with the fiscal and technological demands of modern warfare; nuclear weapons had to be mated to strategic delivery systems in order to serve as anything other than a political symbol; and, if those delivery systems were to serve as part of a deterrent policy, then they had to be responsive, reliable and survivable (the following chapters, and the next paper in this series, will take a closer look at how China’s strategic arsenal has evolved in response to external technological, political and doctrinal pressures). The problem, in a nutshell, was – as Goodwin puts it – reconciling “a clumsy mix of two sets of capabilities derived from uneven progress in developing the technology of war and a continuing commitment to Mao Zedong’s principles of People’s War.”¹²⁹

Given how China’s political history and the development of its nuclear capability played out, there may not have been a realistic alternative. Despite having a workable nuclear weapon, China for almost two decades after its first nuclear detonation lacked the ability to enter into a deterrent relationship with the US because the PLA did not have a strategic delivery system. Even after the first generation of missiles capable of targeting the US mainland, the DF-5A (*Dong Feng* or ‘East Wind’), was deployed in 1981, the deterrent capacity of the limited number of missiles was no more than existential; detailed, comprehensive strategy was not necessary because “the weapons, once deployed, spoke for themselves.”¹³⁰ It is not clear, however, what their message was. In theory, China had the ability to destroy a number of US cities. Whether any of the weapons would have survived a disarming pre-emptive counterforce strike by the US is questionable; but whether Chinese society would have survived the devastating retaliation that would inevitably have followed the destruction of a US city is not. It being difficult to construct rational plans for Armageddon, Beijing settled on the alternative: a brief nuclear exchange “followed up by an

¹²⁸ Michael S. Chase, Andrew S. Erickson and Christopher Yeaw, “The Future of Chinese Deterrence Strategy”, *China Brief*, Vol. IX, No. 5 (4 March 2009), 6.

¹²⁹ Goodwin, 37.

¹³⁰ Lewis and Xue, 547.

attempted invasion.”¹³¹ Such a scenario may have been purely imaginary, but it had the virtue of establishing vital strategic roles both for the country’s strategic nuclear forces, and far more importantly, for the PLA.

Throughout the mid- to late-1960s, China’s strategic thought languished, caught between the Scylla of the old guard and People’s War, which had built the People’s Republic, and the Charybdis of the new realities of warfare, in which massed conscript forces based on ‘millet and rifles’ were irrelevant in the face of mechanized armies, global positioning systems, precision strike and stealth. China’s deterrent force was born into a state of epistemic confusion: founded on a military capability built at enormous cost for largely political reasons; stunted by but nonetheless surviving the vagaries of internal upheavals; taking, for ideological, financial and political reasons, a back seat, along with the naval and air forces, to the land forces of the PLA; and condemned to a minimalist force posture on the theory that a handful of missiles with high-yield warheads could pose a threat sufficient to give any potential adversary pause.

This period of uncertainty came to an end as China (fuelled by domestic growth stemming from gradual economic liberalization under Deng’s Reform and Opening Up programme initiated in December 1978) began to expand both economically and, as a consequence thereof, in terms of regional and global influence. At present, China is in the latter half of a generational drive to rectify the disruptive doctrinal and dialectical dichotomies that stymied its strategic development. Over the past decade, China has come into its own as a nuclear power. The next chapter will examine how this transformation has manifested in one of the most important areas of nuclear weapons theory, focusing on the China’s long and difficult relationship with deterrence.

¹³¹ Alice Langley Hsieh, “Communist China’s Military Policies, Doctrine and Strategy”, 15.

3 China's uneasy relationship with deterrence

One of the most interesting facets of China's evolution from aspiring nuclear weapon state through its first fission and fusion detonations and the slow development of ballistic missiles, to its decades-long struggle to reconcile People's War doctrine with the new military realities of nuclear and information-based weapon systems has been Beijing's troubled relationship with the concept of deterrence.

As noted in the first paper in this series, deterrence, while certainly not a novel concept, took on renewed importance in the nuclear era by virtue of the extreme destructiveness of the new class of weapons. Throughout the history of conventional warfare, deterrence had played its part in preventing (or at least delaying) interstate conflict. Princes – to use Machiavelli's term – whether deliberately or unconsciously, routinely compared the benefits likely to derive from going to war against the costs of doing so (and sometimes against the costs of being trounced by their would-be victims), and tended as a rule not to launch a campaign unless there was a reasonable prospect of the gains outweighing the losses. In the nuclear era, however, the losses, even for the victor, were potentially so extreme as to outweigh any possible gains.¹³² Deterrence failures – i.e., wars, especially nuclear wars – were therefore to be avoided if at all possible.

Deterrence, however, does not mesh well with communist doctrine of any stripe, which views war as the inevitable ideologically-based outgrowth of class struggles within states, or, in interstate relations, between the enlightened socialist states and the reactionary bourgeois states. Such struggles are not to be avoided but are rather to be encouraged and abetted, until all states are socialist, the boundaries of the state and state apparatus themselves “wither away”, and “true communism” emerges. Such doctrine put the USSR, and later China, in a difficult position vis-à-vis a doctrinally opposed but vastly more militarily proficient adversary. It is significant that while Soviet and Chinese ideologues initially made all the right noises about drowning the decadent US and its allies beneath a wave of fraternal socialist what-not, none of them ever pushed the button and got the show rolling as Marx and his intellectual successors had allegedly intended. The prospect of large-scale thermonuclear retaliation seems have been sufficient to stem the tide of rhetoric and impose reasoned calculation on otherwise unreasonable actors.

China's internal philosophical struggle with the dichotomy between the fantasy world of communist political and military thought and the cold, harsh reality of the Bomb is evident in how it dealt with the question of deterrence. The gradual evolution in China's grasp of deterrence paints a clear trajectory. As Mulvenon puts it, “Chinese views of nuclear weapons have evolved from initial disparagement and covetousness prior to the acquisition of an arsenal, to a nuclear minimalist perspective that resembles mutual assured destruction (MAD) in every way but name.”¹³³ How China made this journey is a matter of some interest.

The early stages of China's slow evolution from doctrinal orthodoxy to reasoned strategy were so inconsistent as to be confusing to outsiders. As noted in the previous chapter, Mao's initial dismissal of nuclear weapons as a “paper tiger” appeared to fly in the face of the contention,

¹³² As Cimbala has trenchantly observed, “A little hurt goes a long way with nuclear weapons.” Stephen J. Cimbala, “Nuclear Arms in Asia: Theory and Policy Issues”, *Comparative Strategy*, Vol. 26 (2007), 131.

¹³³ Mulvenon, 239.

made in the same statement, that these weapons would deter the United States from attacking China. Taken in conjunction with later statements attributed to Mao to the effect that China did not fear nuclear war because of its large population, some of whom would surely survive in sufficient numbers to overwhelm any surviving capitalists or imperialists, China's "publicly ambivalent attitude about Armageddon," unique among all of the nuclear powers, seemed to suggest that Beijing would "welcome the deaths of hundreds of millions, if not billions, of people as a possible shortcut to communist nirvana."¹³⁴ Although the accuracy of the interpretation of the Mao citations that led to this perception has been disputed (a point that will be addressed further along in this chapter), the doctrinal orthodoxy has not. Such a sentiment, however alarming it might sound in light of Western, and especially democratic, morals, was perfectly consistent both with Marxist dogma, and with Mao's adaptation thereof to China's special historical circumstances.

Attempts to whitewash such sentiments away over the past four decades have generally been successful, especially given China's gradual adoption of some of the forms, if very little of the actual substance, of Western economic liberalism. But every now and then the mask slips. In July 2005, while speaking at a press briefing, Major-General Zhu Chenghu of China's National Defense University, was widely quoted as having made the following statement:

...if the Americans draw their missiles and position-guided ammunition on to the target zone on China's territory, I think we will have to respond with nuclear weapons", [and that] "we...will prepare ourselves for the destruction of all of the cities east of Xi'an. Of course the Americans will have to be prepared that hundreds of cities will be destroyed by the Chinese.¹³⁵

This was not the first such outburst; a similar remark had allegedly been made in 1996, allegedly by a senior Chinese military officer who supposedly posited that China would inevitably launch a nuclear attack against Los Angeles if China and the US went to war over Taiwan.¹³⁶ While both remarks sparked plenty of furor at the time, such effusions of bluster must be taken with a large grain of salt. These are merely two individuals in a military numbering in the millions, and there is ample precedent for Western military officers departing from their approved speaking points (if not, perhaps, in such apocalyptic terms). Moreover, China did not in 1996 have, and does not now have, the ability to destroy "hundreds of American cities"; nor, absent some unforeseeable and improbable shift in China's strategic trajectory, will it have that ability at any point in the immediate future. Nor, it must be noted, did these outbursts go unchallenged. In Zhu's case, his comments were immediately repudiated by his colleagues, who characterized them variously as "very misleading", "loose talk", and "dead wrong."¹³⁷ Zhu's views, according to another Chinese authority, were misinterpreted; they were taken to be a statement of policy, when in fact they had

¹³⁴ Mulvenon, 239.

¹³⁵ Danny Gittings, "General Zhu Goes Ballistic", *The Wall Street Journal*, 18 July 2005, 13.

¹³⁶ Stephanie Lieggi, "Going Beyond the Stir: The Strategic Realities of China's No-First-Use Policy", Monterey Institute of International Studies, December 2005. [http://www.nti.org/e_research/e3_70.html]. Accessed 2 November 2010.

¹³⁷ See, for example, Pan Zhenqiang, "China Insistence on No-First-Use of Nuclear Weapons", *China Security*, No. 1 (Autumn 2005), 5.

been intended as “a logical conclusion of a thought process.”¹³⁸ This latter explanation is somewhat less reassuring, but probably far closer to the truth.

It has been argued that much of the discomfort on the part of China’s political and military theoreticians and strategists with “the terminology of deterrence” stems from a belief that it “connotes aggressiveness, which is unsuitable to describe China’s purely defensive strategy.”¹³⁹ This is an interesting interpretation of the phenomenon, and one which may be justifiable in view of the classical and philosophical origins of China’s strategic thought. Sun Tzu, after all, counselled stealth, subtlety, deception and craft rather than blind aggression. Deterrence, in order to be credible, requires both the capacity to inflict unacceptable harm, and the political will to do so. Any deterrent balance is thus based on a mutual and overt, or at least strongly implied, exchange of threats – “if you do *this* to me, I will do *that* to you.” To the avid student of Sun Tzu, however (or for that matter, the avid student of Mao), any obvious threat was, equally obviously, a diversion intended to distract the enemy from one’s true intent. Obvious threats ought, therefore, to be ignored – but could one really afford to dismiss as deception a threat of assured destruction, especially when the stakes were so high? Deterrence requires an understanding of capabilities and an appreciation of intent, neither of which is a good fit within a strategic culture that prizes strategic deception.

Penetrating the thought processes of strategists operating according not only to different ideological doctrines but also in the context of a wholly different strategic culture is a non-trivial task. It is of course not possible to know the innermost thoughts of the individuals engaged in developing China’s political and military strategy concerning its nuclear weapons; and as the regime is one of the most opaque and secretive in the world, records of internal deliberations are not available, and are unlikely to become available. The following sections will therefore assess how China’s attitudes toward nuclear deterrence have evolved on the basis of an analysis of public statements, diplomacy, declaratory doctrine and observable activities. This is of course insufficient, but at present it is all that is possible. In this connexion, it is worth repeating the caveat offered by Fravel and Medeiros to the effect that “[a]ny assessment of Chinese leaders’ beliefs about the utility of nuclear weapons and the requirements of deterrence must begin with the observation that primary source data remain scarce but are growing.”¹⁴⁰ We may, therefore, hope that more data will be available in the future to validate or falsify the interpretations offered herein.

For ease of analysis, I have subdivided the discussion that follows into three sections based on the material evolution of China’s nuclear capability. The first section addresses how China, as an aspiring and eventually a new nuclear weapon state, came slowly to first accept, and then later embrace, the concept of nuclear deterrence. The second section looks at how China dealt with the deterrence problem as a small nuclear weapons state reliant upon “existential deterrence”; and the third, at how China’s concept of deterrence changed as its strategic delivery capabilities improved, and China approached a state of “essential equivalence” vis-à-vis the other NWS.

¹³⁸ Bruce G. Blair, “General Zhu and Chinese Nuclear Preemption”, *China Security*, No. 1 (Autumn 2005), 15.

¹³⁹ Chu and Rong, 167.

¹⁴⁰ M. Taylor Fravel and Evan S. Medeiros, “China’s Search for Assured Retaliation: The Evolution of Chinese Nuclear Strategy and Force Structure”, *International Security*, Vol. 35, No. 2 (Fall 2010), 52.

3.1 Embracing deterrence

The on-again, off-again relationship between China's communist regime and the concept of nuclear deterrence dates virtually from the formation of the People's Republic, although the seeds of philosophy were undoubtedly sown in 1945 with the bombing of Hiroshima and Nagasaki. The concept of a bi-directional nuclear deterrent relationship became a reality in 1949 when the USSR detonated its first nuclear weapon; and was thrown into stark relief a few years later when both superpowers demonstrated the far greater yield of thermonuclear weapons. The destruction visited upon two Japanese cities by weapons in the 20-kiloton range – "unacceptable damage", in deterrence parlance – was grossly redefined in less than a decade, when explosive yields began to be measured in megatons rather than in kilotons.

If deterrence was indeed based upon a rational cost-benefit appreciation of a prospective course of action, it was difficult to conceive of any benefit that might justify the risk of even a single thermonuclear detonation in a populated area – especially a major city. History provides some context. The immediate fatalities resulting from the Hiroshima ("Little Boy") and Nagasaki ("Fat Man") attacks totalled approximately two hundred thousand.¹⁴¹ The 3.3 Mt warhead carried by the DF-5A ICBM is nominally more than 150 times as powerful as the Hiroshima bomb, and if detonated in an airburst would destroy everything and kill everyone within four kilometres of ground zero; and would destroy most concrete buildings and cause near-universal blast fatalities within a radius of more than six kilometres.¹⁴² Such a warhead, detonated over Manhattan's Greenwich village, would destroy everything and kill almost everyone south of Central Park, and would do the same to all of Hoboken, most of Union City and Jersey City, and the greater part of Brooklyn.¹⁴³ Based on present population densities, such an attack, in addition to obliterating the economic heart of the United States, would in all probability immediately kill several million people and seriously injure several million more. Damage would total in the hundreds of billions of dollars, and Manhattan would be rendered uninhabitable for years. Faced with the prospect of devastation on such a scale, it is indeed difficult to envision any circumstances (short of societal extinction) in which the risk of a nuclear exchange would be deemed acceptable.

Their sheer unprecedented destructiveness was doubtless the feature of nuclear weapons of greatest interest to Mao and Zhou, both of whom, at least initially, acknowledged that the Bomb served an important purpose in deterring aggression by potential adversaries.¹⁴⁴ There was no apparent discomfort with deterrence in the early 1950s. Chinese military strategists examining the nuclear problem at that time demonstrated no notable reticence in discussing the potential impact

¹⁴¹ The Japan-US Radiation Effects Research Foundation places the official number of acute fatalities for Hiroshima at 90,000-166,000, and for Nagasaki at 60,000-80,000.

[http://www.rerf.or.jp/general/qa_e/qa1.html]. Accessed 17 February 2011. Rhodes discusses the casualty statistics in some detail as well. Richard Rhodes, *The Making of the Atomic Bomb* (New York: Simon and Schuster, 1986), 714-34 and 740-42.

¹⁴² A 1 Mt airburst generates 10 calories per cm² at a range of 12 km (section 5.6.1.1, Thermal Injuries), while a 3.3 Mt airburst would collapse most concrete structures and cause widespread fatalities within 6.5 km of ground zero. Within 4 km of ground zero, even heavily reinforced concrete buildings would be destroyed, and fatalities would be near-universal (Section 5.6.2, Blast Damage and Injury)

[<http://nuclearweaponarchive.org/Nwfaq/Nfaq5.html>]. Accessed 17 February 2011.

¹⁴³ Blast radii obtained by measurement via Google Maps. [<http://maps.google.ca/maps?hl=en&tab=wl>]. Accessed 17 February 2011.

¹⁴⁴ Fravel and Medeiros, 59.

of nuclear weapons on warfare, and drew the same lessons from the Hiroshima and Nagasaki bombings as their Soviet and American counterparts, to wit, that the “use of strategic nuclear weapons would be most effective on countries with concentrated mass population and industry, while tactical nuclear weapons would be most effective when used against a highly concentrated military buildup.”¹⁴⁵ Indeed, the utility of nuclear weapons against massed formations and concentrations of population and industrial capacity seems to have struck a nerve with Beijing. As a largely agrarian and only slowly developing country, China’s massive population, rather than being concentrated, was “scattered across a vast territory,”¹⁴⁶ and its relatively low level of industrialization meant that it was not as vulnerable to nuclear strikes (and, therefore, nuclear deterrence, nuclear threats, or nuclear blackmail) as either the more heavily industrialized West, or the more heavily industrialized and demographically concentrated USSR.

The disparity between the population and industrial concentrations of China and its potential adversaries may have been at the root of Mao’s alleged contempt for nuclear weapons (which seems to have been greater in the late 1950s than earlier in the decade). According to Andrei Gromyko’s Russian-edition memoirs, published in 1988, Mao expressed a noteworthy lack of concern about the prospect of nuclear conflict. Mao “argued that his country could survive a nuclear war, even if it lost 300 million people, and finish off the capitalists with conventional weapons.”¹⁴⁷ Gromyko recalls responding with the (commendably diplomatic) observation that such a proposal would not be welcomed by the Kremlin.

The *sang-froid* of Mao’s stance has been variously characterized as the epitome of communist doctrine, an outright fabrication, and everything in between. Gromyko’s recollection has also been disputed by Chinese scholars; according to one interpretation, Mao is alleged to have said nothing more serious than “It’s getting so hot, and we want to force Eisenhower to take a shower.”¹⁴⁸ Such are the vagaries of translation. Whatever was actually said, and regardless of what may have been intended, in matters of deterrence, actual intent is often difficult to descry, and tends to take a back seat to *perceived* intent. Mao’s aggressive stance was reported in the media and was taken at face value, and few in the West were inclined to take a rosier view of the Chinese communist regime’s rhetoric.

Ironically, this served Beijing’s purposes decades later, once China had become a NWS and potential adversaries were discussing whether the regime had the political will to use the weapons it had built. John Lewis and Xue Litai, writing in the late 1970s, argued on the basis of his decades-old comments, that “[g]iven Mao’s well-known views about nuclear war, none would doubt that he or successors had the will to order a second-strike retaliation.”¹⁴⁹ There is a certain logic to their analysis; after all, they were writing in the wake of the Cultural Revolution, which – like Mao’s Great Leap Forward – had provided empirical evidence of Beijing’s willingness to accept, in pursuit of the regime’s socio-cultural and ideological goals, a degree of internal hardship that other states (especially democratic ones) would consider intolerable. Regardless of

¹⁴⁵ Chu and Rong, 165.

¹⁴⁶ Chu and Rong, 165.

¹⁴⁷ Philip J. Tumban, “Gromyko says Mao wanted Soviet A-Bomb used on GIs”, *The New York Times*, 28 February 1988. [<http://www.nytimes.com/1988/02/22/world/gromyko-says-mao-wanted-soviet-a-bomb-used-on-gi-s.html>]. Accessed 4 November 2010.

¹⁴⁸ Shu Guang Zhang, *Deterrence and Strategic Culture: Chinese-American Confrontations 1949-1958* (Ithaca, NY: Cornell University Press, 1992), 255.

¹⁴⁹ Lewis and Xue, 554.

whether the CPC intended these convulsive internal events to harden the Chinese populace to sacrifice, their cumulative impact on China's strategic culture created the perception that – as one Chinese analyst puts it – “China's understanding of ‘unacceptable damage from a nuclear attack’ [was] different from that of Western countries.”¹⁵⁰ This is of course a blanket statement and, as such, is highly suspect; doubtless the definition of “unacceptable damage” would change somewhat depending upon the strategic circumstances (Beijing would, for example, presumably be willing to tolerate greater risks in the face of an existential threat to China's national existence than, for example, over a few square miles of disputed territory on its remote western frontier). But once again, where deterrence is concerned, it does not really matter whether China's definition of what would be “unacceptable” is, or is not, different in substance from corresponding Western definitions. What matters is that China, as a consequence of its history and the strategic culture deriving therefrom, is **perceived** to be willing to tolerate higher casualties in pursuit of its national objectives.

Not everyone agreed with this assessment; Bernard Brodie, writing in 1973 at the height of the Cultural Revolution, stated that “[i]t requires a very naïve person to argue that the Chinese...being both Communist and also over-populated, would be relatively unconcerned with the destruction of millions of their people through nuclear attack.”¹⁵¹ Brodie's point requires some nuance; he was, in essence, arguing that communist regimes survive, both economically and politically, on the support of their populaces, and that Beijing would be loathe to sacrifice millions of its citizens out of concern for the security of the regime and the economic prosperity of the state, rather than out of any humanitarian motivations. But the point nonetheless stands, and was reinforced after Mao's death by his successors. Deng, for example, argued in the 1970s that it was “impossible to exterminate the human race by using nuclear weapons.

Now there are more than four billion people in the world. If the worst came to worst and more than two billion people died...more than two billion people would live on the globe just the same.”¹⁵²

In short, the CPC regime in Beijing seems to have had no difficulty reaching a psychological accommodation with either the notion of nuclear deterrence, or – at least in principle – the *reductio ad absurdum* of mutual assured destruction. How this accommodation evolved into China's early nuclear doctrine of minimum deterrence is, therefore, a matter of some interest.

The concept of a “minimum deterrence” policy seems to have originated with Khrushchev, who in 1960 appeared prepared to accept what Freedman has termed a “second-best strategic posture.” As noted in the first paper in this study, in 1960 the US enjoyed an 8 to 1 advantage in strategic warheads (3,127 to 386) and a 12 to 1 advantage in overall numbers of warheads (20,434 to 1,605) vis-à-vis the USSR.¹⁵³ This stark disparity notwithstanding, Khrushchev – drawing, perhaps unconsciously, on the arguments of Brodie and Kahn – argued that, given the incredible destructive power of nuclear weapons and the impossibility of crafting an airtight defence against Soviet bombers, any general nuclear exchange would inevitably result in the destruction of a number of American cities. Even if the US managed to obliterate the Soviet Union, the

¹⁵⁰ Sun, 2.

¹⁵¹ Bernard Brodie, *War and Politics* (New York: MacMillan Publishing Co., 1973), 407.

¹⁵² Mulvenon, 248.

¹⁵³ Neill, *Background and Benchmark*, Figure 1 and Table 1, pp 14-15.

destruction that would be caused by even a few Soviet bombs would be sufficient to give Washington pause. The US, Khruschev argued, would be deterred from initiating such a general exchange “by the devastation threatened by the nuclear power becoming available to the Soviet forces” – even though Moscow’s “nuclear power” was an order of magnitude less than that available to Washington.¹⁵⁴ The fact that the US did not press its nuclear advantage during this period may be taken as at least some evidence in support of the “minimum deterrence” thesis.¹⁵⁵

The US-Soviet nuclear gavotte served as the backdrop for China’s development of its first-generation doctrine. The shape of that doctrine, as it had been for the Soviets, was largely a consequence of China’s nuclear capability: “[t]he initial small size and limited technical capability of the Chinese strategic nuclear force caused a lack of credibility for doctrines other than minimum deterrence.”¹⁵⁶ Nie Rongzhen, who had been made a Marshall of the PLA in 1955 and placed in charge of China’s nuclear weapons programme, reinforces this point in his memoirs, arguing that nuclear weapons, once combined with adequate delivery systems (especially the *Dong Feng* series of ballistic missiles that allowed swift nuclear strikes against tactical, theatre, and eventually strategic targets), gave China “the minimal means to stage a counterattack in case our country suffered a surprise nuclear attack by the imperialists.”¹⁵⁷

Even so small a capability served a vital political purpose; during the 1969 Wusuli (Ussuri) River clashes, for example, China and the USSR reportedly exchanged a number of nuclear threats and counter-threats.¹⁵⁸ Once again, nuclear conflict was avoided, proving the value of deterrence – and reinforcing, even extending, the “minimum deterrence” theory, in view of the fact that the Soviets at the time enjoyed an advantage in nuclear weaponry over China of roughly two orders of magnitude. Perhaps the best summary of China’s minimalist concept of deterrence was offered a few years after the Sino-Soviet border conflicts when Deng, in a 1975 address to PRC aerospace officials, said that China “must have some deterrent force (*weishe liliang*) if they [China’s adversaries] also have it. We are unable to do much, but to have it is useful.”¹⁵⁹

Clearly. The obvious strategic utility of China’s minimum nuclear deterrent capability did not prevent Beijing from adopting what might be considered a hypocritical (a more nuanced writer might use the term “Janus-like”) stance vis-à-vis the deterrent strategies of other states. China’s criticism of the deterrent postures of its adversaries, especially “the US imperialists”, harked back to its first post-detonation statement. The gulf between doctrine and declaratory policy, however, did not reach full flower until the 1990s, when China began to openly condemn the whole notion of nuclear deterrence. For much of that decade, successive statements from the PRC Foreign Ministry enjoined “other nuclear-weapon states to give up their policy of nuclear deterrence.” (10 June 1994). China – according to a speech by Vice Premier and Foreign Minister Qian Qichen at the 1995 Review Conference on the nuclear Non-Proliferation Treaty (NPT) – did not “endorse the policy of nuclear deterrence”; its nuclear weapons were “solely for self-defense, never meant

¹⁵⁴ Freedman, 248.

¹⁵⁵ There are, of course, other factors that may have dissuaded Washington from killing millions of Soviet citizens in an unprovoked nuclear attack; but these tend not to be accounted for in classical realist interpretations of the motives underlying interstate relations.

¹⁵⁶ Baohui Zhang, “The Taiwan Strait and the Future of China’s No-First-Use Nuclear Policy”, *Comparative Strategy*, Vol. 27 (2008), 165.

¹⁵⁷ Lewis and Xue, 554. Emphasis in original.

¹⁵⁸ S.K. Ghosh, “China’s Nuclear Weapons Programme and Strategy”, in Ghosh and Sreedhar, 69.

¹⁵⁹ Fravel and Medeiros, 59.

to pose against or threaten any specific country.”(18 April 1995) And Sha Zukang, the PRC Ambassador to the UN First Committee, told the 50th Session of the UN General Assembly that “[i]n the post-Cold War era of today, it is obviously anachronistic to continue with the policy of nuclear deterrence based on the first-use of nuclear weapons and thus subjecting other countries to nuclear threat.”(17 October 1995)¹⁶⁰

This introduced a new argument into the equation – that the problem might be “first-use” rather than merely deterrence. But that aspect of China’s policy debate did not resurface for some years. Qian reiterated his position at the General Assembly’s 51st Session, arguing that the “major nuclear powers should renounce their policy of nuclear deterrence.”(25 September 1996) Beijing put the same talking point into the official statement released by the regime to mark its 45th nuclear weapons test on 29 July 1996: “Major nuclear weapons states should abandon their policy of nuclear deterrence.” Ambassador Sha came back to the well again the following spring: “The nuclear-weapon states...should abandon their policy of nuclear deterrence...”(8 April 1997);¹⁶¹ as did the PRC Foreign Ministry eighteen months later, targeting only the US this time: “We urge the United States in the strongest terms to abandon the policy of nuclear deterrence...”(9 December 1997).¹⁶²

And then, inexplicably, the lines seemed to change. In its 2000 Defence White Paper, Beijing stated that “China maintains a small but effective nuclear counterattacking force in order to deter possible nuclear attacks by other countries.”¹⁶³ This seemed to fly in the face of Beijing’s pronounced distaste for deterrence, but it was only the beginning. The following year, Ambassador Sha, speaking in the wake of the heightened tensions resulting from China’s decision to forcibly land and detain a US patrol and surveillance aircraft and its crew, said, “We just hope that the existing mutual deterrence between [China and the United States] can be preserved.”(14 March 2001)¹⁶⁴ This was, needless to say, a rather ominous turn of phrase in a crisis that had hitherto had no nuclear overtones.

Beijing’s representatives returned to the old talking points shortly thereafter. Hu Xiaodi, the new PRC Ambassador to the UN, told the plenary session of the Conference on Disarmament that “The nuclear deterrence doctrine characterized by the policy of first-use should be abandoned.”(7 February 2002) Interestingly, the “first-use” qualifier had sprung up again. This pattern was to reappear often in the years that followed. Ambassador Hu repeated the formulation to the NPT Preparatory Committee the following year – “nuclear deterrence policy based on the first use of nuclear weapons should be abandoned” (28 April 2003) – and the point has been repeatedly reinforced by Chinese officials on innumerable subsequent occasions. President Hu Jintao, addressing the UN Summit on Nuclear Non-Proliferation and Nuclear Disarmament in 2009, called for all countries to “abandon the nuclear deterrence policy based on first use of nuclear

¹⁶⁰ Citations compiled by the Nuclear threat Initiative. [<http://www.nti.org/db/China/deterpos.htm>]. Accessed 2 November 2010.

¹⁶¹ Citations compiled by the Nuclear threat Initiative. [<http://www.nti.org/db/China/deterpos.htm>]. Accessed 2 November 2010.

¹⁶² *South China Morning Post*, 10 December 1997; “China tells US to cut nuclear arsenal”, Reuters, 9 December 1997.

¹⁶³ [<http://www.china-un.ch/eng/bjzl/t176952.htm>]. Accessed 18 November 2010.

¹⁶⁴ Citations from the Nuclear threat Initiative. [<http://www.nti.org/db/China/deterpos.htm>]. Accessed 2 November 2010.

weapons.”¹⁶⁵ This was all too obviously an not very subtle attempt to draw an artificial distinction between ‘good’ (Chinese) deterrence, and ‘bad’ (American) deterrence. This concept will be explored at greater length further along in this paper.

Clearly China has gone to great lengths over the past two decades to de-conflict its own strategic doctrine, which is unequivocally based on continuing deterrent relationships vis-à-vis its principle adversaries (the US and Russia, and regional rivals India, Taiwan, and Japan), from its declaratory policy, which is based on an interesting amalgam of criticism of nuclear deterrence, selective support of arms control and disarmament mechanisms, and periodic calls, however disingenuous, for complete nuclear disarmament. The end result appears to have been a doctrine that lies somewhere between existential and minimal nuclear deterrence seasoned by declaratory policy branding deterrence – especially “deterrence based on first-use” – as somehow immoral. If this were the whole story, then the CPC regime would merit George Orwell’s praise for its mastery of what he called “double-think” – the ability to psychologically reconcile two mutually contradictory ideas. But it is not the whole story. The following section will take a more in-depth look at how China’s view of deterrence has evolved since its acquisition of nuclear weapons – and, therewith, its first “existential” deterrent capability.

3.2 The rehabilitation of deterrence

Few would argue that a state possessing, for example, a handful of tanks would be capable of deterring, via the threat of a devastating armoured riposte, attack by a neighbouring state possessing thousands of tanks. One tank slipping through an enemy’s cordon could cause some damage, but not a great deal. The individual destructiveness of nuclear weapons, especially thermonuclear weapons, forced nations – both those that possessed them, and those that did not – to rethink the classical deterrent calculus.

As Brodie had pointed out, the three elements of a nuclear deterrent balance were the ability to cause unacceptable damage, the willingness to do so, and the impossibility of defence against nuclear weapons. At the time China detonated its first nuclear weapon in 1964, both the US and USSR had invested a great deal in defending their borders against incursions by nuclear-armed bombers. However, missiles were rapidly replacing bombers as the delivery platform of choice; and research and development efforts notwithstanding, there was no practical defence against a ballistic missile. This eventually shifted the emphasis in strike planning to destroying the enemy’s missiles before they could be launched, which in practical terms ushered in under Nixon the counterforce strategy that McNamara had toyed with and discarded a decade earlier. Even the eventual deployment of anti-ballistic missile systems by the US (Sprint/Safeguard) and USSR (Galoche/Gazelle) was very limited, and could not guarantee anything even remotely approaching a ‘leak-proof’ defence. Given the destructive potential carried a single warhead, the ‘unacceptable damage’ factor in the deterrence equation quickly acquired significant weight.

This calculus formed the background for establishing a sub-category of deterrence that, for the USSR and later for China, entered into effect once the state in question possessed a deliverable nuclear weapon, and that existed as a precursor to the state approaching a “minimal deterrence” capacity. This state of affairs has been labelled “existential deterrence” and is based on the

¹⁶⁵ “President Hu reiterates China’s nuclear strategy of self-defense”, China.org, 24 September 2009. [http://www.china.org.cn/video/2009-09/25/content_18600856.htm]. Accessed 2 November 2010.

capability, even if only theoretical, to inflict severe damage if necessary. In the US-USSR deterrence relationship, the period of “existential deterrence” by the latter of the former was of short duration, lasting roughly from the first Soviet nuclear detonation in 1949 to some point in the mid-to-late 1950s, by which time the USSR – although still at a severe disadvantage in warheads – had several hundred nuclear weapons, sufficient to ensure that any exchange would unavoidably result in “unacceptable damage” to the US. This inaugurated the “minimal deterrent” that Krushchev had referred to in public discourse.¹⁶⁶ The notion of a minimal deterrent faded from the lexicon again as the US and USSR approached essential equivalence a few years later, and the reality of unacceptable damage as a result of any nuclear exchange became painfully obvious to both sides.¹⁶⁷ It was still possible to ‘win’ a nuclear war, of course; but neither Washington nor Moscow was able to pretend that any victory that resulted from a nuclear exchange would not be grimly Pyrrhic.

By contrast, China’s period of “existential deterrence” has lasted much longer. Beijing’s nuclear tests were designed to demonstrate not only the capability to create a nuclear explosion (as, for example, India’s 1974 test was intended to demonstrate), but in fact to demonstrate a military capability by deploying finished weapons rather than merely physics packages via H-6 bomber. Having done so, however, China did not embark upon an extensive build-up of its nuclear stockpile; and its development of ballistic missiles, as compared to the rapidity with which the US and Soviet ballistic missile programmes expanded in the 1960s and 1970s, was lethargic. To a certain extent, this slow growth was a consequence of China’s limited resources,¹⁶⁸ leading to the (hardly surprising) conclusion that strategy is often an outgrowth of aggregate national power as opposed to purely military capacity. But it was also due to a number of other internal and external factors, the most significant of which were the stultifying impact of the Cultural Revolution on all intellectual and scientific advances; and the notable lack of a peer-equivalent to support a bilateral deterrence relationship. The US and USSR had each other; China had no one.

This is not to suggest that China was not under either conventional or nuclear threat in the 1960s and 1970s; quite the contrary. However, Beijing’s potential adversaries were, in all cases, either states whose nuclear capacity was either so overwhelmingly superior that China had no hope of matching them either in quality or quantity of weapons and delivery systems (e.g., the US and USSR); or they were non-nuclear, like India (at least until 1974, and arguably until 1998); or, like Japan, and Taiwan, were both non-nuclear and posed no direct threat to Chinese security or sovereignty, and so were, at least in theory, deteritable by virtue of the twin facts of the size of China’s conventional forces, and China’s nuclear monopoly.¹⁶⁹

The nature of China’s internal deterrent calculus during this period, for reasons identified in the first paper in this series, is extremely difficult if not impossible to decipher; but it may be inferred. As Fravel and Medeiros have noted, some aspects of China’s nuclear strategy are visible in its overt policies during the period in question.

¹⁶⁶ Neill, *Background and Benchmark*, Figure 1, 14.

¹⁶⁷ Freedman, 250.

¹⁶⁸ Sun, 1.

¹⁶⁹ Washington – again, in theory – extended its deterrent ‘umbrella’ (to the extent that such a term has any meaning) – to Japan, the ROK and the Republic of China throughout much of the period under investigation. US security guarantees of this sort demonstrably played a role in Chinese strategic planning.

Much of the debate revolves around whether China pursues either minimum deterrence or limited deterrence. Minimum deterrence refers to ‘threatening the lowest level of damage necessary to prevent attack, with the fewest number of nuclear weapons possible’. Similarly, limited deterrence ‘requires a limited war-fighting capability to inflict costly damage on the adversary at every rung on the escalation ladder, thus denying the enemy victory in a nuclear war’.¹⁷⁰

The difficulty, as the authors correctly identify, lies in divining intent, and it is not clear what Beijing’s intent is at present, let alone what it was during China’s long period of ‘existential deterrence’. The key difference between the two strategic approaches lies in whether the NWS in question has structured, equipped and trained its forces to engage in more than a single retaliatory strike. Just as with ‘existential deterrence’, minimal deterrence is in essence the threat of one unacceptably damaging riposte; whereas, as Fravel and Medeiros point out, limited deterrence requires the ability to inflict unacceptable damage at every stage in an escalating crisis. The latter is, in essence, a war-fighting doctrine, even if a limited one; the former is not. Both, however, require, as a condition of credibility, forces capable of surviving a disarming first strike.¹⁷¹

Some hint of the outline of Beijing’s philosophy vis-à-vis the question of minimal vs. limited deterrence may be inferred from the ‘Five Musts’ articulated by Jiang Zemin at the Central Military Commission’s conference in July 2000. These were expressed as follows:

- China must own strategic nuclear weapons of a definite quality and quantity in order to ensure national security;
- China must guarantee the safety of strategic nuclear bases and prevent against the loss of combat effectiveness from attacks and destruction by hostile countries;
- China must ensure that its strategic nuclear weapons are at a high degree of war preparedness;
- When an aggressor launches a nuclear attack against China, China must be able to launch nuclear counterattack and nuclear re-attack against the aggressor;
- China must pay attention to the global situation of strategic balance and stability and, when there are changes in the situation, adjust its strategic nuclear weapon development strategy in a timely manner.¹⁷²

While all of these principles are key to understanding China’s nuclear intent, the second, third and fourth ‘musts’ circumscribe Jiang’s doctrine in a neat bundle. The second ‘must’ is survivability of nuclear retaliatory forces; the third is readiness; and the fourth draws a clear distinction between counterattack, or a one-off retaliatory strike, the hallmark of a minimal deterrence

¹⁷⁰ Fravel and Medeiros, 50.

¹⁷¹ Toshi Yoshihara and James R. Holmes, “China’s New Undersea Nuclear Deterrent: Strategy, Doctrine, and Capabilities”, *Joint Forces Quarterly*, No. 50 (2008, 3rd Quarter), 35.

¹⁷² Wen Jen, “HK Paper Reports PRC CMC Meeting on Nuclear Weapons Strategy,” *Hong Kong Tai Yang Pao* (internet version-WWW), in Chinese, 17 July 2000, in FBIS-CPP20000717000021. Cited at [http://www.nti.org/db/China/doctrine.htm]. Accessed 18 November 2010. The original article is not available online.

policy, and “nuclear re-attack”, which suggests a war-fighting doctrine intended to ensure that China is capable of executing more than simply a single spasmodic riposte. Jiang’s ‘Five Musts’ point clearly in the direction of a policy of limited deterrence. This is all the more fascinating given that, as demonstrated in the previous chapter, these ‘Musts’ were expressed in the wake of a half-decade of China’s diplomats condemning deterrence and blackguarding its proponents and practitioners at every turn.

Clearly, at some point between the 1970s and 1990s, China consciously adopted a strategy of limited deterrence. Whether China’s nuclear forces were capable of supporting such a policy change when it happened is moot; as occasionally happens, the policy came first, and the forces were later built or adapted to support it. The strategic doctrine issued by Beijing in 2008, for example, “calls for the building of a lean and effective deterrent force and the flexible use of different means of deterrence,”¹⁷³ and goes on to add that the “Second Artillery Force is...the core force of China for strategic deterrence,” and that Second Artillery “is mainly responsible for deterring other countries from using nuclear weapons against China, and for conducting nuclear counterattacks and precision strikes with conventional missiles.”¹⁷⁴ Deterrence, so long a dirty word, has undeniably been rehabilitated.

Or has it? Deterrence is yet another area where linguistic divisions, whether accidentally or deliberately, have been permitted to cloud Western understanding of Beijing’s intent. One pair of analysts draws a clear distinction between the theoretical, strategic and policy aspects of a given approach to nuclear weapons, and the pragmatic function of those weapons:

Chinese leaders, political and military, have often used the term ‘deterrence’ to describe the *function* of China’s nuclear weapons, even if they never clearly state that China’s nuclear *strategy* is deterrence....In 1988, ‘deterrence’ first appeared in a CMC document on China’s new-era military strategy. In the same year, another document issued by the CMC more specifically called for ‘an emphasis on the deterrence role of the armed forces,’ and ‘fostering deterrence with Chinese characteristics.¹⁷⁵

Under this interpretation, deterrence is not a policy or strategy so much as it is a product of the possession of nuclear weapons. This interpretation is supported by Beijing’s choice of language in some of its public diplomacy documents – for example, the afore-mentioned 2008 Defence White Paper, which states that the Second Artillery force “implements a self-defensive nuclear strategy...and takes as its fundamental mission the protection of China from any nuclear attack.”¹⁷⁶ In attempting to unpack the language in this document, it is important to recall that Beijing’s white papers are not translated from the original so much as they are written entirely for consumption by English-speaking readers. The words used therein are presumably chosen with

¹⁷³ *China’s National Defense in 2008*, 8.

¹⁷⁴ *China’s National Defense in 2008*, 27. The 2010 version of China’s Defence White Paper is more precise, referring to 2nd Artillery’s “capabilities in rapid reaction, penetration, precision strike, damage infliction, protection and survivability”, and the PLAN’s role in “strategic deterrence and counter-attack.” *China’s National Defense in 2010*, section III. [http://www.gov.cn/english/official/2011-03/31/content_1835499.htm]. Accessed 7 April 2011.

¹⁷⁵ Chu and Rong, 167.

¹⁷⁶ *China’s National Defense in 2008*, 27. This language is absent from the 2010 White Paper, which is somewhat shorter than the 2008 edition.

great care – and they do not always mean what they would mean in a similar, Western context. A “self-defensive” strategy, for example, would normally be taken to preclude striking first (especially, as the preceding sentence in that citation argues, as Second Artillery is officially committed to China’s no-first-use policy for nuclear weapons); but taken in the context of the “defensive attack” contemplated by classical military doctrine, a preventive or ‘spoiling’ attack intended to prevent an enemy from executing an anticipated attack against China would doctrinally be considered “self-defensive.” Moreover, protecting China and deterring attack are not necessarily the same thing; deterrence is passive, but protection may require an active strategy – consistent with other aspects of the same White Paper, which commit the PLA to continuing its decades-old commitment to a constantly-evolving strategy of ‘active defence’.¹⁷⁷

Analysts must be cognizant of the nuanced differences between what deterrence means in differing Western and Chinese strategic contexts. Fravel and Medeiros, for example, note that, during another speech to the CMC (this time in 2002), Jiang stated that “International society attaches more and more importance to containing war or delaying the outbreak of war, and avoiding or reducing the devastation of war, through strategic deterrence (*zhanlue weishe*)”; and argued that “Strategic deterrence has already become an important part of international military competition.”¹⁷⁸ Again, this was an interesting interpretation of the meaning of “deterrence”, given that when his speech was delivered the US-led invasion of Iraq was in the offing, and the most significant international events in recent memory were the jihadist attacks of 9/11, the NATO bombing of Serbia, the decade-long melt-down of Yugoslavia, and the Rwandan genocide – none of which had involved nuclear deterrence to any appreciable extent.

Jiang’s interpretation of the meaning of deterrence if anything only clouds the waters. His contention that “China developed strategic nuclear weapons not for attack but for defense” is standard boiler-plate; where the confusion begins is when Jiang asserts that China’s possession of nuclear weapons constitutes “a kind of great deterrent toward nuclear weapons states and makes them not dare to act indiscriminately.”¹⁷⁹ One presumes that he meant that China’s nuclear weapons prevent other states from acting indiscriminately vis-à-vis China (or its client states) if only because there is no suggestion in his statement that China attempted to extend its nuclear ‘umbrella’ to other areas of conflict in the late 1990s and immediately thereafter. By contrast, Hu Jintao has not gone on the record to express his personal views of deterrence; instead, as Fravel and Medeiros note, “authoritative articles by senior military scholars” have intimated that Hu has continued to support his predecessor’s view of nuclear weapons.¹⁸⁰

What does this leaves us with? One possible answer to this question is what might be termed a ‘composite nuclear strategy’ that consists of political and military components. The political component has both ante-facto and post-facto elements. From a political perspective, China’s mere possession of nuclear weapons, *pace* Jiang, is deemed to be sufficient to give potential adversaries pause. This is an ‘existential deterrence’ posture based on the argument that the mere possession of a nuclear capability and the lack of an ability on the part of the adversary to guarantee a leak-proof defence threaten unacceptable damage, creating doubt in the adversary’s

¹⁷⁷ According to the 2010 White Paper, “Active defense” remains a feature of China’s military strategy. *China’s National Defense in 2010*, Section III.

¹⁷⁸ Fravel and Medeiros, 60.

¹⁷⁹ Fravel and Medeiros, 66.

¹⁸⁰ Fravel and Medeiros, 60.

mind and forcing a cost-benefit analysis that will, always and inevitably, be negative. From this point, the military component takes over; in order to ensure that the threat remains credible, the PLA must maintain effective, capable, responsive and survivable nuclear retaliatory forces. Constructing and maintaining those forces shore up the existential deterrent, but have also gone beyond this limited objective to the point where China, by the early 1980s (at the latest), had a practical as well as theoretical capability to launch a highly damaging retaliatory strike against the US, its most distant likely adversary – in short, the key requirements for a minimal deterrent.

The gradual professionalization of the PLA, its slow re-equipment and re-armament in line with China's increasing national wealth, and the need to combat the accelerating US advantage in conventional weapons systems with potentially strategic reach and impact have since combined to drive an increase in the effectiveness and survivability of the Second Artillery force to the point that China now, arguably, possesses a limited war-fighting capacity that would enable it to maintain control of its forces and reply to strategic attacks beyond a single retaliatory strike. This is the baseline requirement for a limited deterrence strategy. As China's nuclear capability continues to increase, however, while the stockpiles and delivery capabilities of the major NWS continue to decline, the balance of forces will inevitably pull China beyond nuclear minimalism, to the point where its strategic forces are essentially equivalent to those of its likely adversaries. Essential equivalence, however, creates a whole new strategic calculus, and renders feasible new ranges of strategic options that were previously unavailable or at least impracticable – not the least of which are counterforce doctrines, strategic defences, and MAD.

3.3 Deterrence and 'essential equivalence'

The first paper in this study noted that 'essential equivalence' was an elastic concept based on the notion that there is "an intangible line separating a condition of substantive nuclear monopoly on the use of nuclear force from a condition where two nuclear powers are capable of doing each other significant harm."¹⁸¹ That paper posits that the USSR might be deemed to have reached a state of essential equivalence vis-à-vis the US (the only other nuclear power at the time) at some point prior to McNamara's 1962 announcement of a new, modified retaliatory policy that would, to the extent possible, avoid Soviet cities; and goes on to note that, under this definition, essential equivalence obviously does not constitute substantive equivalence, as the US, during the five-year period preceding the announcement, maintained a lead in nuclear weapons (both strategic warheads and nuclear weapons of all kinds) of 16 to 1 in 1957, and that still stood at 7 to 1 in 1962.¹⁸² The shift in doctrine appears to have been prompted by Moscow's achievement of the ability to deliver several hundred warheads to US targets. Under such circumstances, even an entirely unachievable 99 percent interception rate for enemy bombers would still have allowed three to five cities to be struck and destroyed, at an unimaginable cost in death and devastation. The threshold for a state of "essential equivalence" may, therefore, be adjudged to be rather low – probably well below "parity."¹⁸³

¹⁸¹ Neill, *Background and Benchmark*, 13.

¹⁸² Neill, *Background and Benchmark*, 14.

¹⁸³ In the case of the US-Soviet nuclear balance, the threshold was demonstrably well below parity, as Washington began to back away from Massive Retaliation while it still retained about an 8 to 1 advantage in strategic weaponry.

Given this benchmark, it is worth asking whether China has in fact reached a state of essential equivalence with respect to the US; and if so, when did this happen? As a first and fundamental point, the definition of the term offered in previous work and repeated above rests on the capacity to reliably inflict unacceptable damage, which – from a US perspective, at least – appears to be the ability to destroy a handful of cities. Given the relatively short range of the H-6 bomber China arguably first achieved this ability vis-à-vis the US with the deployment of the DF-5A ICBM in 1981. The DF-5A – a first-generation liquid-fuelled missile carrying a unitary high-yield thermonuclear warhead (reportedly in the 4-5 Mt range) – was two generations behind the MX *Peacekeeper* ICBMs that the US was about to begin deploying; but however primitive it might have been, the lack of any defences against ballistic missiles all but guaranteed that unless the US was able to destroy the whole of the DF-5A fleet in a pre-emptive strike, there was a reasonable likelihood that at least one warhead would reach its target. It is of course impossible to judge whether the DF-5A deterred any action Washington might have contemplated over the past three decades; lack of evidence cannot be construed as evidence. But the existence of the DF-5A, its devastating payload, and the lack of a defence against ballistic missiles unquestionably constituted a credible and unavoidable threat of unacceptable damage; and we may therefore posit that the baseline conditions necessary to posit that a state of essential equivalence¹⁸⁴ has existed between the US and China since 1981. The ‘minimal deterrent’, the subject of so much conjecture about China’s strategic intentions, had been achieved.

The deployment pattern for the DF-5A – like the deployment patterns for all of the IRBMs and ICBMs fielded by the PLA – reflected, consciously or no, a strategy that appears in retrospect to have been based largely if not exclusively on a combination of functional minimalism and a desire to demonstrate strategic nuclear capability. This desire has been evident throughout China’s trajectory as a nuclear power; the 1964 post-detonation communiqué explicitly highlighted the role of the explosion as a demonstration of “a major achievement of the Chinese people.”¹⁸⁴ The limited number of weapons actually built and deployed, however, is one of the key features that sets China’s activities as a NWS apart from those of the US and USSR, the two states it aspired to emulate (and, in the fullness of time, to displace). Since China first began deploying longer-ranged ballistic missiles – the DF-3A (1971), the DF-4 (1980), the DF-5A (1981) and the two modifications of the DF-31 (2007-08), Beijing has consistently conducted rolling deployments that cease when the technology of the weapon system is mature.¹⁸⁵ The overall numbers of weapons deployed are, as a consequence, small; open-source estimates place the number of deployed DF-3As at 15-20 missiles (with 5-10 launchers); of DF-4s at 15-20 missiles (10-15 launchers); and of DF-5s at 20 silo-based missiles. The total number of DF-31s to be deployed appears unlikely to exceed 20. The only deployment of a medium- or longer-ranged weapon that seems to break this pattern is the DF-21, first deployed in 1991, of which some 85-95 appear to have been deployed (with some 75-85 mobile launchers).¹⁸⁶

¹⁸⁴ “The Atomic Bomb: Statement of the Government of the People’s Republic of China, October 16 1964”.

¹⁸⁵ Li Bin, “China’s Nuclear Strategy”, presentation to the Carnegie International Nonproliferation Conference, 25-26 June 2007, 6. [http://carnegieendowment.org/files/deter_disarm_li.pdf]. Accessed 10 November 2010.

¹⁸⁶ Sources: Stockholm International Peace Research Institute (SIPRI), *Yearbook 2008* (Oxford: Oxford University Press, 2008), 386, table 8A.6; [<http://www.sinodefence.com/strategic/missile/df15.asp>]; [http://www.missilethreat.com/missilesoftheworld/id.28/missile_detail.asp]; Office of the Secretary of Defense, *Annual Report to Congress: Military and Security Developments Involving the People’s Republic*

These deployment patterns, taken in context with other military research and development activities in China, suggest that there are at least two schools of thought concerning how best to address the overwhelming nuclear and conventional military superiority of the US. Two Chinese researchers, conjecturing that Beijing follows a policy that they term minimum *dynamic* deterrence, suggest that the two divergent philosophies are best understood from a standpoint of the sort of arsenal each would require. “Symmetric deterrence” would require an a stockpile of weapons and a range and quantity of delivery systems comparable to those possessed by the US, and mimicking, to the extent possible, US capabilities. This, they argue, is the approach that the Soviet Union took throughout the four decades of superpower rivalry. The route China has taken, by contrast, might best be termed “asymmetric deterrence”, which requires the construction and maintenance of a suite of capabilities that are designed not to match an opponent’s strengths, but rather to take advantage of his weaknesses.¹⁸⁷

One cannot help but note that a policy of asymmetric deterrence would be entirely consistent with China’s body of classical military philosophy. Where many classical Western military philosophers lionize the direct clash of armies, Sun Tzu admonished practitioners of the art of war to “to avoid what is strong and to strike at what is weak.”¹⁸⁸ According to the ancient sage, “You may advance and be absolutely irresistible, if you make for the enemy’s weak points.”¹⁸⁹ There is a clear logistic advantage to asymmetric planning and preparations; “Numerical weakness comes from having to prepare against possible attacks; numerical strength, from compelling our adversary to make these preparations against us.”¹⁹⁰ And it is never advisable to waste one’s strength in futile assaults against an enemy’s strongest points; “the worst policy of all is to besiege walled cities.”¹⁹¹ Fighting an enemy on ground of his choosing is never wise. This, according to some, is precisely what the US tempted the USSR into trying to achieve during the 1980s, to Moscow’s eventual sorrow.

China’s deployments also demonstrate the point, made in the first paper in this series, that policy and doctrine are not the same thing, and indeed may not always be entirely consistent. Policy, after all, reflects a government’s intentions, while doctrine is designed to describe how a military force intends to fight.¹⁹² In this context, it is significant that “while most Western scholars continue to characterize the PRC’s approach as ‘minimum deterrence’....Chinese war plans seem to be related to the quantity and quality of nuclear weapons available rather than any Western minimum deterrence concepts.”¹⁹³ In other words, while Beijing has continued to hold the line on strategic nuclear minimalism, the PLA seems, in recent years, to have been subtly ‘leaning forward’ in order to secure a greater role for its burgeoning nuclear capability. Beijing’s 2006 Defence White Paper, for example, as noted in the citation listed in Chapter 2 of this paper, was incorporated into doctrine by documents that require the Second Artillery force to “maintain a force sufficient to ‘threaten the opponent by striking his cities’, and employ a strike force of ‘moderate intensity’ that is ‘sufficient and effective’ to cause the enemy to incur ‘a certain extent

of China 2010 (Washington, D.C.: Department of Defense, 2010), 66. All websites accessed 8 November 2010.

¹⁸⁷ Chu and Rong, 161-62.

¹⁸⁸ Sun Tzu, *The Art of War*, Chapter 6.

¹⁸⁹ Sun Tzu, *The Art of War*, Chapter 6.

¹⁹⁰ Sun Tzu, *The Art of War*, Chapter 6.

¹⁹¹ Sun Tzu, *The Art of War*, Chapter 3.

¹⁹² Neill, *Background and Benchmark*, 2.

¹⁹³ Schneider, 245.

of unbearable destruction’.”¹⁹⁴ It is not clear that these doctrinal objectives are entirely consistent with policy objectives that completely eschew first use, and that restricts nuclear use to “counterattack in self-defense.”¹⁹⁵

The same policy statement described China’s objective of building “a lean and effective nuclear force” that is secure, reliable, credible, and “capable of meeting [China’s] national security needs.”¹⁹⁶ This reinforces the conjecture that China intends to continue modernizing its strategic forces on a rolling basis, deploying new weapons systems once they are operational, and ceasing deployments once the technology is mature, in favour of commencing work on the next generation system. This option is possible for Beijing because China is not engaged with any state in the sort of strategic competition that characterized the US-USSR rivalry; rather, as noted above, it has deliberately eschewed “besieging the walled city” of US strategic nuclear dominance, and is instead seeking means of outflanking it.

This approach imposes a number of ineluctable requirements on China’s strategic nuclear capability. The first is the problem of survivability. A strategic retaliatory force depends for its credibility not only on the reliability of individual weapons and the national command chain that enables them to be launched in time of crisis, but also on the likelihood that the system can ride out a disarming first strike and retain sufficient retaliatory capacity to still be able to cause unacceptable damage to the attacker. In this context, the Achilles’ Heel of China’s strategic forces is that they are almost exclusively land-based and, as such, are relatively easy to locate and target with nuclear or advanced conventional weapons.

Since the 1960s, SSBNs have been the answer to the problem of creating a truly survivable retaliatory force¹⁹⁷; however, Chinese ballistic missile submarine (and SLBM) technology lags so far behind that of the US that far from enhancing the survivability of its deterrent force, it is likely that putting a significant proportion of its strategic ‘eggs’ into one slow-moving, easily-detectable ‘basket’ would place China’s strategic deterrent at greater risk. Beijing nonetheless made the effort to do precisely that, developing the *Julang* (JL – ‘giant wave’) JL-1 SLBM and deploying twelve of them in the *Xia* SSBN in 1986; and continues to work on resolving crippling design flaws in the JL-2 SLBM and its launch platform, the *Jin* SSBN. The slow rate of progress on these systems is probably a combination of many things, including (but not necessarily limited to) the degree of technical sophistication required to produce, deploy and operate nuclear-powered fleet ballistic missile submarines and their primary weapon systems; the enormous cost of doing so; and the painful realization that fielding necessarily small numbers of technologically unsophisticated SSBNs against the world’s premiere anti-submarine warfare navy in the sort of mid-Pacific deterrence patrol patterns necessary to threaten continental US targets unquestionably qualifies as the strategic equivalent of “besieging a walled city.”

¹⁹⁴ Larry M. Wortzel, “China’s Nuclear Forces: Operations, Training, Doctrine, Command, Control, and Campaign Planning” (Carlisle, Pa.: U.S. Army War College, May 2007), 17.

¹⁹⁵ *China’s National Defense in 2006*, Section 2.

¹⁹⁶ *China’s National Defense in 2006*, Section 2.

¹⁹⁷ “International experience shows the most effective second-strike capability is submarines.” Major General Xu Guangyu, China Arms Control and Disarmament Association, in *Liberation Army Daily*, 22 April 2010. [http://www.globalsecuritynewswire.org/gsn/nw_20100422_9457.php]. Accessed 2 November 2010.

Another alternative for maintaining the credibility of a nuclear retaliatory force is constructive ambiguity – the approach adopted by Israel since it became an unacknowledged NWS at some point shortly after China did. While the PRC is an openly-acknowledged NWS, it has adopted some of the same principles as Israel with respect to its nuclear forces, maintaining a high degree of secrecy and operational security, and refusing to confirm or deny details reported in open source literature. Imprecise knowledge about the size, shape and status of China’s strategic forces suggests that, in time of war, an adversary contemplating a disarming first strike would never be able to be certain that he had located all of China’s weapons. Further ambiguity derives from the variety of launch mechanisms China has adopted – fixed launch platforms, silo-based launchers, and road-mobile transport-erector-launcher (TEL) systems, in addition to SLBMs and aircraft-delivered cruise missiles and gravity bombs (for theatre missions), which taken altogether make it more difficult for a potential adversary to ensure that he has found and destroyed all potential threats. Some analysts have suggested that Beijing is comfortable with “the ambiguity surrounding the survivability of its nuclear forces”,¹⁹⁸ but it is not clear whether this is true, or whether Beijing, in playing off the uncertainty that its long-standing political and military opacity have generated, is merely making a virtue of necessity.

The struggle to ensure survivability in the face of superior US detection, surveillance, and nuclear and conventional strike capabilities necessarily affects Beijing’s perception of how large an arsenal it must maintain in order to ensure the credibility of its strategic deterrent. Another goad is effectiveness of the deterrent force – and effectiveness is measured in more terms than merely the reliability of the weapons and control systems. The decision by the Clinton Administration to deploy a limited ballistic missile defence system (via H.R. 4, the *National Missile Defense Act of 1999*, which Clinton signed on 23 July of that year) consisting of 100 ground-based interceptors (GBI) in Alaska with associated tracking and control radars and other system architecture was, from Beijing’s perspective, a potential game-changer.¹⁹⁹ While the National Security Strategy (NSS) explicitly stated that “neither side should deploy defenses that would undermine the other side’s nuclear deterrent”, this principle clearly applied only to the deterrent balance between the US and the Russian Federation. China’s modest deterrent force – which at the time consisted of the 20 DF-5As, which were the only Chinese ballistic missiles capable of reaching the continental United States – would have been rendered impotent by a missile shield consisting of 100 interceptors. This would be especially true if China’s missile forces were first subjected to a disarming counterforce strike by either nuclear or advanced conventional weapons.

The US BMD system added a new factor to the calculus; as one analyst of Chinese nuclear strategy noted, a minimal deterrent posture is highly vulnerable to changes in the strategic situation, and the size necessary to sustain credibility is related not only to the survivability of the deterrent force, but also to the need to “be able to mount a nuclear strike that can penetrate an enemy’s missile defense system after surviving a first strike.”²⁰⁰ Here again it is possible to view the gulf that emerges between policy and doctrine. The state of the US BMD system at present is such that it does not threaten to significantly degrade China’s deterrent capability; the ten or so operational GBI are not capable of intercepting the 30 or so Chinese ICBMs currently deployed and capable of targeting the US mainland. However, the existence of the BMD system

¹⁹⁸ Yoshihara and Holmes, 36.

¹⁹⁹ The White House, *A National Security Strategy For a Global Age*, December 2000, 26.

[<http://www.globalsecurity.org/military/library/policy/national/nss-0012.pdf>]. Accessed 23 February 2011.

²⁰⁰ Sun, 3.

architecture and the possibility that it might some day be expanded are routinely cited by Chinese strategists and policy-makers as justification for what amounts to the only nuclear force expansion programme in the world. Indeed, it has been suggested that the US missile defence program has prompted China's leadership to re-examine its understanding of what is meant by deterrence, one result of which is that "the Chinese government has stopped criticizing the term...which hints at a new willingness to re-examine the concept."²⁰¹

This naturally begs a chicken-and-egg question: which came first, the policy or the capability? In other words, did China develop nuclear weapons in response to a genuine threat perception derived from its own policy development process? Or did its nuclear weapons policy evolve in the wake of a decision to acquire nuclear weapons for the largely political, non-military benefits accruing ineluctably from the fact of possession? The foregoing chapters suggest the latter – and China's lengthy and often lackadaisical acquisition and modernization processes reinforce the perception that Beijing views its nuclear forces as, first and foremost, a political tool rather than a military one. This in turn suggests that China's nuclear doctrine is a reaction to the fact of possession (it being alien to the military mind to lack a doctrine for employing a weapon that one possesses), and also explains why doctrine and policy appear to diverge. From the military perspective, nuclear weapons are a means to an end; but from the political perspective, they are an end in and of themselves.

If the role of China's nuclear weapons is predominantly political, then one must ask whether China's insistence on a minimum deterrent is a conscious decision, or simply a consequence of the unwillingness or inability on the part of the CPC to expand China's strategic forces beyond the minimum necessary to maintain a credible existential deterrent. The US, for example, built and emplaced more than 1,000 *Minuteman-III* ICBMs, and sent more than 2,000 *Trident D-5* SLBMs to sea. Was China's far lower build-rate for each of its missile classes a consequence of its threat perception, which was undoubtedly different from that of Washington? Was it a consequence of resource constraints, which were undoubtedly tighter in China than in the US? Or was it, as successive White Papers have averred, a deliberate decision to maintain a very small deterrent force deriving its value from a combination of destructive power and uncertainty?

Absent some greater insight into the decision-making processes of the CPC, it is impossible to be certain. However, some indicators are available. Mao, and later Deng, routinely emphasized that while China would become a nuclear power, development and industrialization would continue to be given priority, and that policy certainly continues under the present generation of leadership. This supports the "resource constraints" argument. Lewis also contends that China has deliberately eschewed the kind of survivability measures that one might expect of a NWS concerned about maintaining the viability of its deterrent: "During the depths of the Sino-Soviet crisis," he notes, "China's leaders did not disperse the available stockpile of atomic bombs, instead retaining them under centralized control."²⁰² This is the opposite of what one would expect a threatened national command authority to do, and it suggests that loss of nuclear control was deemed a greater risk than a disarming first strike. This provides some useful insight into China's confidence in its personnel and command and control measures, which appears to have

²⁰¹ Joanne Tompkins, "How U.S. Strategic Policy Is Changing China's Nuclear Plans", *Arms Control Today*, January/February 2003. [www.armscontrol.org/print/1200]. Accessed 2 November 2010.

²⁰² Jeffrey Lewis, *The Minimum Means of Reprisal: China's Search for Security in the Nuclear Age* (Cambridge, Massachusetts: MIT Press, 2007), 195.

increased proportional to the professionalization of the PLA; and it reinforces the suggestion that the political role of nuclear weapons may be, in Beijing's eyes, more important than their military role.

The background against which the debate over the future of China's nuclear strategy is being conducted is growing ever more diverse and complicated. Proponents of China's classical military thought continue to argue that "China's nuclear strategy is completely defensive, focused only on deterring the possibility of nuclear blackmail being used against China by other nuclear powers"²⁰³, while more forward-leaning authors appear to be trying to move the debate in more activist directions. Recent Chinese strategic writings have called for an "aspirational doctrine of 'limited deterrence' (*youxian weishe*) comprised of counterforce, warfighting capabilities 'to deter conventional, theatre, and strategic nuclear war, and to control and suppress escalation during a nuclear war'."²⁰⁴ These would constitute a genuine and comprehensive nuclear warfighting capacity, analogous to that sought by the Nixon Administration in the early 1970s, and a decade later by the Reagan Administration. They would also represent a philosophical quantum leap beyond the minimal deterrent posture based on a small, survivable second-strike capacity.

Some authors have gone further, arguing that China may be trending towards establishing a condition of mutual assured destruction vis-à-vis potential adversaries, notably India and the Russian Federation, but most especially the US; however, the characteristics of the force that China appears to be trying to build (and for which the above-mentioned forward-leaning thinkers are calling) is qualitatively different from the sort of force necessary to invoke a state of MAD. According to Mulvenon, MAD consists in essence of three strategic principles: avoidance of first-strike options, so as to avoid destabilizing the MAD balance; avoidance of counterforce options, so as not to threaten the enemy's weapons systems which are the foundation of his part of the MAD equation; and avoid defences, as these would interfere with the 'assured' part of the balance.²⁰⁵ China – by developing precision-guided, rapid-response, solid-fuelled ICBMs capable of counterforce targeting – is demonstrably not taking the MAD route.

What, then, does China hope to achieve with its nuclear forces? Is it attempting, as Beijing avers and as Brodie suggested, to deter all war as the only sure means of deterring the use of nuclear weapons?²⁰⁶ Is it merely trying to retain, in the face of rapidly-advancing conventional military technologies (especially on the part of the US) the capacity to pose the threat of unavoidable retaliation upon which deterrence depends?²⁰⁷ Or is it embarking upon a uniquely Chinese exercise in nuclear deterrence? To investigate this final question, it is necessary to go a little deeper into how the psychology of deterrence appears to be understood from the perspective of China's nuclear policy and decision-makers.

²⁰³ Li Jijun, 5.

²⁰⁴ Mulvenon, 240-41.

²⁰⁵ Mulvenon, 240.

²⁰⁶ Brodie, 404.

²⁰⁷ Keir A. Leiber and Daryl G. Press, "The Nukes We Need: Preserving the American Deterrent", in *Foreign Affairs*, Vol. 88, No. 6 (November/December 2009), 49.

3.4 The psychology of deterrence

One of the interesting facets of the Chinese regime's statements about deterrence is their remarkable consistency over the decades since China's entry into the nuclear club. As the various chronologies discussed above have demonstrated, the official Chinese stance on deterrence has gone through several clearly defined periods. During some of these, deterrence seems to have enjoyed official sanction, while during others, the concept stood in bad odour. After China's first nuclear explosion, for example, Beijing argued that the atomic bomb (though a "paper tiger") would strengthen China's national defence and "oppose the U.S. imperialist policy of nuclear blackmail and nuclear threats."²⁰⁸ This is a fairly clear and unambiguous statement of the deterrent function of nuclear weapons.

Subsequent statements were less clear, at least until the rounding up of the Gang of Four put an end to the anti-intellectual atmosphere of the Cultural Revolution and it was possible to begin to adapt Maoist dogma (especially with respect to People's War) to the new nuclear reality. China was subsequently very close-mouthed concerning its nuclear weapons policy and doctrine, but abandoned its reticence after the fall of the Berlin Wall, when the US and USSR began negotiating deep cuts in their respective arsenals. China became much more active in international arms control and disarmament activities (a phenomenon that will be discussed at greater length in the next chapter), and, as noted above, began vociferously condemning deterrence as the root of all nuclear evil. After several years (perhaps upon noticing that there was no distinction, in English at least, between the deterrent function performed by US and Russian nuclear weapons, and that performed by China's own nuclear arsenal), toward the end of the 1990s the Foreign Ministry amended its talking points, and began condemning – as Hu Jintao did in 2009 – nuclear deterrence "based on [the] first use of nuclear weapons."²⁰⁹ Presumably, as has already been noted, this was to differentiate 'good' Chinese deterrence from 'bad' US and Russian deterrence on the grounds that the latter states had not offered a no-first-use guarantee, as China had done.

What is particularly interesting about China's on-again, off-again relationship with deterrence is that it appears to have evolved entirely independent either of technological developments or of deployment patterns. This is the opposite of what happened in the US. As the chronology offered in the first paper in this study makes clear, US nuclear weapons policy and the doctrine for their employment nearly always followed the development and deployment of new weapons systems. Policy, in other words, tended to be based on the possible. In the Chinese case, the reverse has largely been true. For example, China has maintained a no-first-use policy virtually since the hour of its first nuclear explosion; Beijing's post-test statement included a solemn declaration "that China will never at any time or under any circumstances be the first to use nuclear weapons."²¹⁰ This policy did not derive from capacity; except in the grossest, most potentially suicidal sense, China at the time did not *have* the capability to execute a pre-emptive nuclear strike against any state. In 1964, China had one warhead; the US had more than 30,000, of which thousands could

²⁰⁸ "The Atomic Bomb: Statement of the Government of the People's Republic of China, October 16 1964".

²⁰⁹ "President Hu reiterates China's nuclear strategy of self-defense", China.org, 24 September 2009. [http://www.china.org.cn/video/2009-09/25/content_18600856.htm]. Accessed 2 November 2010.

²¹⁰ "The Atomic Bomb: Statement of the Government of the People's Republic of China, October 16 1964".

have reached the Chinese mainland. If anything, the NFU policy was less a statement of moral principle than an outgrowth of logical reasoning; had China ever used nuclear weapons against any NWS (or for that matter, against any ally of a NWS), it would have risked a devastating response.

While these circumstances have changed significantly since China first issued its NFU policy, the policy itself has not changed at all. This suggests that in China, policy may be even less connected to technological or doctrinal developments (both at home, and on the part of its principal adversaries) than is the case in other NWS. The non-connection of Chinese declaratory policy to concrete developments suggests that its policy principally serves political and rhetorical rather than doctrinal and/or military purposes.

There may be a linguistic origin for the apparent disconnect between policy and objective conditions. Deterrence, after all, is a relatively new term in English, at least in its contemporary guise, and is defined as a “thing that deters, esp. nuclear weapon of a State or alliance as deterring attack by another.” The same reference defines ‘deter’ as “discourage or hinder (from) by fear, dislike of trouble, etc.”²¹¹ While the meaning of a ‘deterrent threat’ is often clear from the context, the French version of the term, *dissuasion*, strikes somewhat closer to the mark. It is worth noting that this term, while not a neologism, is a relatively recent repurposing of an existing term. The 1934 (revised 1957) edition of the *Oxford Concise French-English Dictionary* translates ‘deter from’ as both *détourner de* and *empêcher de*, both of which require an object, which implies that one is deterring someone else from following a contemplated course of action. The same source defines *détourner* as possessing numerous meanings, among them “to turn aside, ward off or divert” (and notes that *détourner un coup* translates as “to ward off a blow”); and, of course, “to dissuade.” There is no translation of ‘deterrence’ into French in the 1957 edition; the term had perhaps not yet come into sufficiently general usage in English to merit a translation.

As both English and French share Latin roots, it is worth noting that the English ‘deter’ (although not the French *détourner*, which is derived from the negation via the prefix *dé-* of the verb *tourner*) has its origins in the Latin words *deterre* and *absterrēre*, which, according to Cassel’s New Latin Dictionary (1953 ed.), respectively mean “to frighten from, deter, discourage;” and “to frighten away, to drive away by fear.”²¹² The connotation in contemporary English, then, of terms like ‘deter’, ‘deterrent’ and ‘deterrence’ is that of convincing an adversary to abstain from a prospective course of action by means of a threat of adverse consequences.

It is not entirely clear that the term as it is used in the West is accurately reflected in the various Chinese translations that have been proposed. According to Nan Li’s 1996 discussion of the evolution of the PLA’s warfighting doctrine, Chinese military philosophers traditionally rejected the notion of deterrence:

First, it was thought to brandish violent force (*xuanyao wuli*), glorify the domination of the strong over the weak (*yiqiang linruo*), and therefore supported unjust (*shidao*) wars. Secondly, deterrence has always been associated with

²¹¹ J.B. Sykes, ed., *The Concise Oxford Dictionary of Current English*, 7th Edition (Oxford: Clarendon Press, 1982), 261.

²¹² D.P. Simpson, *Cassell’s New Latin-English English-Latin Dictionary* (London: Cassell & Company, n.d. (between 1953 and 1960)), 691, 184, and 4.

aggression and expansion of imperialist countries, and is analogous to naked military blackmail...²¹³

It is difficult to unpack this complex set of concepts without cultural referents. First, brandishing violent force is not a rational objection, as the threat of force is itself the *sine-qua-non* of deterrence; indeed, the author confirms this by continuing the above train of thought by acknowledging that “deterrence may be an empty threat if not substantiated by tangible power.”²¹⁴ The second objection – that there is necessarily some link between deterrent threats and the domination of the strong over the weak – is likewise a *non sequitur*; there are few periods in recorded history where the weak have not been dominated by the strong, and it is not illogical to conjecture that domination enforced by the threat of violence might be preferable to domination enforced by violence in practice. The third objection – that deterrence is somehow responsible for the perpetration of unjust wars – is equally perplexing, as the goal of deterrence is to prevent the outbreak of war, and thus any war – just or unjust – in fact represents a failure of deterrence. Some clue as to the origin of these objections lies in the second one identified by the author, which condemns the “aggression and expansion of imperialist countries”, a common and recurring theme in Communist Chinese strategic literature, and less an appeal to traditional philosophy than a reiteration of long-standing complaints about Western and Japanese domination of China in the 19th and early-20th Centuries. Nan Li’s arguments smack less of traditional, moral objections to deterrence than of an ex-post-facto attempt to find in philosophical literature support for positions grounded in contemporary political dogmatism.²¹⁵

As is the case in the West, Chinese strategic writers have expanded upon the foundational concept of deterrence in order to adapt it to the nuclear era, describing what Fravel and Medeiros have labelled three ideal types: maximum (*zuigao*), minimum (*zuidi*), and moderate intensity (*zhongdeng qiangdu*). According to the taxonomy adopted by the authors, “the last type of deterrence is characterized as relying on “ ‘sufficient and effective’ nuclear strike force [sic] to threaten an opponent by imposing on him an unbearable destruction to a certain extent so as to attain the objective of one’s deterrent.” They note that this definition – “especially the explicit reference to the concepts of sufficiency and effectiveness” – bears many striking similarities to the manner in which PLA writers have translated Beijing’s nuclear policy into a workable nuclear strategy; and also that it is “consistent with the concept of deterrence though assured retaliation.”²¹⁶ This breakdown reinforces the argument that Beijing has progressively moved away from minimum (*zuidi*) deterrence and, as other observers have conjectured, appears to be moving towards a ‘moderate intensity’ model that would enable the CPC regime to engage in graduated response at any stage in an escalatory duel.

To a certain extent, China’s military theorists and analysts appear to be struggling with many of the same issues that arose in the US during the 1950s and 1960s as their American counterparts attempted to come to grips with the growing realization that nuclear weapons, far from being nothing more than “bigger bombs”, were fundamentally different. In both the US and the Chinese experience, one of the first places where the difference between conventional and atomic

²¹³ Nan Li, 450-51.

²¹⁴ Nan Li, 450-51.

²¹⁵ The reference to unjust wars is likewise perplexing. Just war theory is an Augustinian construct. This may be less an appeal to *jus ad bellum / jus in bello* argumentation than to the ‘unjustness’ of the Western powers’ domination of China in the 19th and early 20th Centuries.

²¹⁶ Fravel and Medeiros, 77-78.

munitions became manifest was in target selection. In *Making the Atomic Bomb*, Richard Rhodes offers some details of the deliberations that resulted in the selection of Hiroshima and Nagasaki for the first combat use of the new weapon (as opposed to, for example, the former imperial capital of Kyoto, which had been the first choice of the Manhattan Project's chief, Major-General Leslie Groves). The key factors in the decision had little to do with eliminating the war industry of Japan, and much more to do with demoralizing the Japanese people (something that the fire-bombing of Tokyo and the deaths of 100,000 of its citizens had been unable to accomplish) and sending a message to the Japanese leadership (and, perhaps equally importantly, to Stalin) about America's capability and resolve. The hoped-for psychological impact of the strike, in other words, outweighed practical military concerns. This principle carried through US nuclear strike planning in the early decades of the superpower arms race, and continues to resonate to this day – including among Chinese strategists, who agree that “deterrence is psychological and that targets must be carefully chosen to deliver the right message and control escalation.”²¹⁷ There is, indeed, an explicit psychological component to China's deterrent thinking: Zhao Xijun, commander of the Second Artillery force from 1996-2003, wrote that the goal of China's nuclear forces is “to shake the enemy psychologically, make the enemy's war volition waver, weaken the enemy commander's operational determination, disturb the enemy psyche and public psyche, and achieve [the objective of] 'conquering without fighting'.”²¹⁸ All of these objectives might have been drawn directly from Sun Tzu, whose preference for “not fighting and subduing the enemy” is, according to one Indian analyst, “the core of 'deterrence with Chinese characteristics'.”²¹⁹

In stark contrast to the enduring political denigration by Chinese spokesmen of deterrence as a tool of imperialists, Chinese proponents of deterrence have argued that deterrence is not immoral because “by mounting pressure on the enemy backed up by force, it achieves the political objective without the use of force”; that, because its purpose is defence, levying a deterrent threat is not necessarily an aggressive act, and is not, therefore, the “patent of imperialism and hegemonism”; and finally, that because deterrence may be applied effectively in a regional context as well as between global powers, it should be the key focus of China's conventional and nuclear strategic forces.²²⁰ It has also been argued that a deterrence strategy can be useful as a goad to capability development, as the capacity to inflict harm is one of the indispensable components of any deterrent posture. In order to pose a credible threat of force, one requires credible forces which, in the event of a failure of deterrence, are then available to execute military operations to resolve a conflict and restore deterrence.

It is worth noting that this argument is equally valid from both directions: if one's intent is to fight and win local wars, then one needs the capability to do so in order to pose a credible deterrent threat; whereas if one's intent is simply to deter aggression, one still needs to build the capability to fight and win local wars if deterrence is to work. Intent, therefore, is irrelevant; the deterrent threat flows from the existence of a credible military capability and the perception that one possesses the political will to make use of it. This facilitates risk assessment by eliminating – to parse a Rumsfeldian phrase – ‘unknowable unknowns’ like an adversary's intent, and basing the deterrent calculus instead upon somewhat more objective criteria, such as capability assessments. That said, China fits only uncomfortably into this mould; as Lewis notes, the rolling

²¹⁷ Schneider, 252.

²¹⁸ Chase, Erickson and Yeaw, 7.

²¹⁹ Rajain, 105.

²²⁰ Nan Li, 451.

and largely minimalist nature of Chinese strategic force deployments means that China has never deployed as many strategic weapons systems as it has been capable of deploying.²²¹ Objective measurements of capability therefore see only the absolute bottom end of China's strategic potential, and this imbalance must be taken into account when assessing China's aggregate potential deterrent capacity, particularly over the longer term. Deterrence is less stable vis-à-vis a state that builds and deploys well below its ability, as the status quo is vulnerable to policy shifts that could lead to a breakout – for example, if Beijing were to alter its long-standing prioritization of industrial over military development; or if, as appears to be the case at present, Beijing's economic circumstances were to improve to the point that the regime could afford not only 'butter', but also 'guns' on a scale enabling Beijing to challenge the US. When assessing an adversary's aggregate and potential deterrent capacity, therefore, it is important not to fall into the trap of attempting to descry intent. It is an error to misconstrue policy as preference.

Some writers seem to think that China will continue to adhere to its limited deterrence policy for the foreseeable future²²²; others see in certain aspects of China's deterrent strategy a potentially more aggressive stance. White Papers produced for Western consumption are necessarily bland – long on rhetoric and statements of principle, but short on details (a characteristic not at all unique to Chinese policy documents). Wortzel's list of the priorities for nuclear counterattack outlined by the PLA leadership offers more insight into Chinese strategic nuclear thinking. From the point of view of the PLA, the principal purposes of nuclear counterattack campaigns should be to:

- cause the will of the enemy (and the populace) to waver;
- destroy the enemy's command and control system;
- delay the enemy's war (or combat) operations;
- reduce the enemy's force generation and war-making potential; and,
- degrade the enemy's ability to win a nuclear war.²²³

While some of these priorities are consistent with targeting priorities identified in, for example, US strategic nuclear doctrine²²⁴, their ordering, and the use of force necessary to achieve them, merits discussion. Delaying an enemy's war (or combat) operations, for example, would require nuclear strikes against his deployed forces – a tactical or at most theatre use of nuclear weapons. Destroying an enemy's command and control system could involve theatre or strategic strikes, or even attacks against key C4ISR systems – for example, satellites in orbit and key ground relay stations. Reducing the enemy's force generation and war-making potential would likely involve nuclear strikes against the enemy's home territory, a significant escalation even if such strikes were directed principally against largely military targets. Degrading the enemy's ability to win a nuclear war would require specifically targeting strategic nuclear forces (ICBM fields, bomber-

²²¹ Lewis, 196.

²²² Yoshihara and Holmes, 34.

²²³ Wortzel, 18.

²²⁴ See Joint Chiefs of Staff, Joint Publication 3-12, "Doctrine for Joint Nuclear Operations", 15 March 2005, Chapter II, 5. [http://www.globalsecurity.org/wmd/library/policy/dod/jp3_12fc2.pdf]. Accessed 24 February 2011.

capable airfields, and SSBNs – if those can be found – or their bases), the strategic communications network, and/or the national command authority empowered to release nuclear weapons for use – all of which would be a further escalation. Finally, the use of nuclear weapons to cause the will of the enemy (and the populace) to waver suggests that China’s targeting priorities explicitly contemplate counter-value targeting. In one sense, this is not surprising, as holding enemy cities at risk is the *ultima ratio* of any state possessing nuclear weapons and the means to deliver them. At the same time, however, even if this list is indeed representative of the PLA’s approach to nuclear doctrine, the leaders responsible for executing that doctrine cannot be ignorant of the vast imbalance in nuclear capability between China and its most likely nuclear adversaries – nor of the likely response by any of those adversaries should China launch a nuclear missile against one of their cities. This sort of priority list lends credence to the arguments of those who conjecture that China may be attempting to establish a condition of MAD vis-à-vis its principle rivals.

It is always risky to cite Chinese military authorities; as in the West, off-the-cuff bluster does not necessarily represent government policy. That said, however, as China’s nuclear strategy is, according to Chinese sources, informed equally by political and military considerations, it is worth noting that Second Artillery’s commander at the turn of the millennium, the aforementioned Zhao Xijun, is on record arguing that “one should employ nuclear weapons to initiate active nuclear deterrence against the enemy.”²²⁵ This is a more forward-leaning interpretation of the ‘active defence’ concept that had been a formal facet of Chinese military strategy at least since the 1950s, and is a clear indication that China’s nuclear doctrine contemplates the use of nuclear strikes to deter an enemy from further aggression.

It is not clear from Zhao’s words where such strikes would take place (e.g., on the territory of an enemy state; against an enemy formation on neighbouring terrain; or against enemy troops on Chinese territory); nor is it evident that China would, in accordance with its long-standing NFU policy, necessarily wait for an enemy to use nuclear weapons first before engaging in ‘active nuclear deterrence’. Clearly there is a gulf between our understanding of China’s nuclear strategy, our assumptions concerning China’s approach to deterrence, our deconstruction of China’s nuclear intentions, and what we may logically or reasonably infer from China’s many statements on matters nuclear.

Some of these factors – for example, China’s political intentions – are irreducible; ‘black boxes’, as it were, that cannot be decrypted without more insight into the internal deliberations of China’s nuclear decision-making machinery than we presently enjoy, or are ever likely to. Others, however, like declaratory policy, are perhaps more open and transparent, and thus may be subjected to more profound investigation. The next two chapters of this paper will undertake a more in-depth examination of the four foundational elements of China’s declaratory nuclear policy: its long-standing NFU policy for nuclear weapons; its position and role in multilateral nuclear arms control and disarmament negotiations; its opposition, often vociferous, to Washington’s development and deployment of strategic missile defences; and what appears to have been a gradual and often uneven evolution from a policy of minimal deterrence to one of limited or graduated response – or perhaps even counterforce.

²²⁵ Chase, Erickson and Yeaw, 7.

4 China's declaratory policy

As has already been noted, declaratory policy, precisely because of its key political role as a tool of diplomacy, can be misleading. Indeed, its very purpose may be to mislead.²²⁶ At the same time, one cannot simply dismiss declaratory policy out of hand as a presumptive exercise in dissimulation or deception. Policy, after all, has two audiences – the internal domestic audience, and the external foreign audience – and even if (perhaps *especially* if) it is primarily intended to deceive, then in order to do so it must be plausible. This means that there must be at least some correlation, however tenuous, between a government's publicly stated intentions and its observable actions. This principle is waxing in importance as the definition of what is observable continues to grow.

For this reason, a closer examination of some of the long-standing trends in China's declaratory policy vis-à-vis nuclear weapons is warranted. While China maintains one of the world's more secretive and deliberately opaque political systems, Beijing's ability to conceal its intentions continues to decrease. Satellite observation, the Internet, and perhaps most importantly a deliberate policy of expanding trade and financial interaction with key markets, all combine to inexorably increase the bi-directional permeability of China's national security barriers. Absent some unforeseen internal convulsion, China will never become an open society – but technology and policy are wearing away its defences. This trend increasingly enables analysts to compare policy to activity to see whether China's words match its deeds.

This chapter will examine three trends that have emerged from China's four decades as a NWS. These trends – China's long-standing insistence that it maintains a strict no first-use policy for nuclear weapons; its perspective on the role of, and its gradually increasing participation in, international nuclear arms control and disarmament negotiations, albeit for purposes not entirely aligned with the ostensible goals of those negotiations; and its growing opposition to ballistic missile defences – are all key aspects of China's declaratory policy. The manner in which these elements of policy have evolved will serve as the segue into the final chapter of this paper, which will examine what appears to be a trend away from China's traditional policy of minimal deterrence. In addition to the inherent value of examination and discussion, these elements of declaratory policy will serve as a basis for later portions of this study, examining the correlation – or lack thereof – between China's nuclear declaratory policy and its behaviour, both in terms of nuclear force modernization and expansion, and more broadly as a major actor in the Asia-Pacific region.

4.1 No First-Use

China has always stayed true to its commitments that it will not be the first to use nuclear weapons at any time and in any circumstances, and will unconditionally not use or threaten to use nuclear weapons against non-nuclear-weapon states or in nuclear-weapon-free zones.²²⁷

²²⁶ Newmyer, 490.

²²⁷ *China's National Defense in 2008*, 51.

Early in January 2011, Japan's Kyodo News published a report alleging, on the basis of "Chinese documents", that Beijing was considering "adjusting" its NFU policy in order to deal with emerging military contingencies, e.g., the possibility that another state might execute non-nuclear strikes against China "with absolutely superior conventional weapons".²²⁸ Although the Chinese Foreign Ministry swiftly denied the reports, calling them "totally groundless" and accusing their authors of "ulterior motives"²²⁹ – in "that utterly unconvincing manner of apparatchiks and functionaries the world over", according to one arms control analyst²³⁰ – there was nothing untoward in the analysis of Beijing's strategic concerns and motivations. Many Western governments continue to regard Beijing's forty year-old NFU pledge with scepticism, particularly in the context of the significant lead in conventional military power enjoyed by the US, and in view of Washington's long-standing support for non-interference by the mainland in Taiwan's internal politics. As one senior Japanese Defence Ministry official reportedly told US interlocutors during talks in June 2009, "no nuclear expert believes" China's NFU protestations.²³¹ Because NFU has played such a central role in China's nuclear declaratory policy from the very beginning of its emergence onto the nuclear stage, it is worth examining both the logic of NFU from Beijing's perspective, and the role of such a pledge in the deterrent calculus – from both sides of the equation.

China's NFU pledge originates in the statement issued by Beijing on the occasion of its first nuclear test on 16 October 1964: "The Chinese government hereby solemnly declares that China will never at any time or under any circumstances be the first to use nuclear weapons."²³² As an exercise in declaratory policy, this first iteration of the NFU pledge was strategically sound. A nuclear test device is not necessarily a weapon, and even if it were, China had neither the number of weapons necessary to pose any sort of threat to either of the nuclear superpowers, nor the means to deliver them (especially vis-à-vis the US, which in 1964 had nearly 5,000 strategic nuclear weapons, and the ability to deliver them to China). China faced no credible threat of serious attack by any non-nuclear state, and using one or two nuclear weapons against the Soviet Union in the event of a border clash would have been ill-advised. In the strategic context in which it was devised, China's NFU pledge made sense.

Beyond this, however, an early NFU pledge also served a number of important political purposes. First, it allowed China to simultaneously showcase its technological savoir-faire while allowing the regime to perpetuate the Maoist doctrine that nuclear weapons were "paper tigers"; Beijing was bragging that while it could produce nuclear weapons, it disdained them in favour of the power of the moral over the material and the overwhelming superiority of People's War. Second, the pledge allowed Beijing to define, and then to seize, the moral high ground in the nuclear debate. The existence of that moral high ground remains open to debate. In the realm of nuclear

²²⁸ "China Shifting Nuclear Rules of Engagement: Report", Agence France-Presse, 5 January 2011 [http://www.defensenews.com/story.php?i=5380627&c=AIR&s=TOP]. Accessed 4 February 2011.

²²⁹ Lu Hai, ed., "China will not strike first with nuclear weapons: FM", Xinhua.net, 6 January 2011. [http://news.xinhuanet.com/english2010/china/2011-01/06/c_13679373.htm]. Accessed 2 March 2011.

²³⁰ Jeffrey Lewis, "China and No First Use", [http://lewis.armscontrolwonk.com/archive/3446/china-and-no-first-use-3]. Accessed 4 February 2011.

²³¹ The reported conversation derives from US cables disclosed by WikiLeaks. Philip Dorling, "China Determined to Rival US Arsenal", SMH.com, 28 February 2011. [http://www.smh.com.au/world/china-determined-to-rival-us-arsenal-20110227-1ba60.html]. Accessed 2 March 2011.

²³² "The Atomic Bomb: Statement of the Government of the People's Republic of China, October 16 1964".

deterrence, there is no special virtue in ruling out first use. Under the strategic condition of MAD, mutual survival depends on mutual restraint, which in turn depends on the credibility of the threat that any provocation will inevitably result in consequences out of all proportion to any expected benefits of aggression. The stability of such a relationship depends upon maintaining the firm belief on the part of all participants that nuclear use as a response to provocation – including first use – is not only possible but inevitable. A pledge never to use nuclear weapons first therefore undermines the deterrent relationship, unless the state making the pledge is not part of the deterrent relationship to begin with – and China in 1964 was not. Had China been a participant in the deterrent calculus, its pledge would have been dangerous. Because it was not, its pledge was irrelevant.

The complexities of such arguments, of course, tend to be lost on those unfamiliar with the often arcane nature of discussions of nuclear deterrence, and China was able to parlay its NFU pledge into a posture of moral superiority, especially vis-à-vis the US – which, after Hiroshima and Nagasaki, could never credibly claim a NFU, and which in any case, being a participant in the US-Soviet ‘balance of terror’, it could never do. Most foreign observers (many of whom were besotted with Mao and his visions of a socialist utopia even while the gruesome excesses of the Great Leap Forward and the Cultural Revolution were under way) overlooked the fact that any use of a nuclear weapon by China against a major nuclear power would have constituted national suicide, and therefore failed to recognize that China’s NFU pledge simply made a political virtue out of a strategic necessity. Finally, the pledge cost Beijing nothing and, because policy may be altered at any time (the political plasticity enjoyed by centralized totalitarian regimes vastly exceeds that available to decision-makers in representative democracies), it placed no constraints upon Beijing’s strategic flexibility.

There is some logic in the argument that China’s NFU pledge is grounded in large part in its conventional military doctrine. The People’s Republic was born as the result of victory in a largely conventional military context, and the long-standing People’s War dogma put the maintenance of large (if not necessarily state-of-the-art) land forces at the forefront of policy. There are numerous threads to the overall rationale for the size and scope of capabilities created and maintained by the PLA over the past sixty years, not all of them obvious to outside analysts, and not all of them related to external threats. To a certain extent, China maintained an enormous and technologically limited army because the founding of the People’s Republic had depended on such a force, and its lack of a sophisticated scientific and industrial base prevented it from creating a force modelled on those of the victorious powers after the Second World War. The demands of internal security likewise augured in favour of a large army, as did that army’s role in domestic engineering and infrastructure projects, as well as the social value of providing employment for large numbers of men of military age. The nature of external threats – e.g., from Russia, with both an enormous, sophisticated military force bolstered by nuclear weapons, and later from India, with a population approaching China’s in size – also demanded a large force. Finally, China’s lack of the nuclear option required an army that “could defeat a foreign invasion without using its nuclear weapons.”²³³

While some of these considerations have changed over the past six decades, others have not. China’s nuclear weapons capabilities, while significant and growing, do not approach, and absent some unforeseen (and inexplicable) policy decisions on the part of Washington or Moscow will

²³³ Zhang, “Taiwan Strait,” 166-67.

not exceed, those of its most likely adversaries; and China still does not face any significant threat of a land invasion. There is still value to maintaining a large military force, although China is, for reasons that will be discussed elsewhere, embarking upon a comprehensive programme of modernization and upgrades, with the result that China's capacity to respond to a conventional military attack either against its territory or in its immediate vicinity has greatly improved in recent years.²³⁴ Even if there were a political reason to abandon its NFU policy, these trends would augur against doing so.

Other trends, however, suggest that amendments to the NFU policy may be justified. As noted above, there are political benefits, and no operational downsides, to declaring a NFU policy when one is a relative underdog in terms of aggregate nuclear capability. China's arsenal, however, is expanding rapidly as a consequence of policy decisions taken in Beijing, while the arsenals of its principal rivals, the US and Russia, are shrinking (or at least stagnating) in response to arms reduction agreements like Bush's SORT and Obama's New START. As I have already argued, both above and elsewhere²³⁵, while a NFU policy may make sense for a state with no significant retaliatory capacity, once nuclear adversaries approach a condition of essential equivalence the deterrent relationship between them changes, and NFU may become a destabilizing factor. China's arsenal already stands at dozens of deliverable strategic warheads, and is climbing towards the low hundreds. India's arsenal numbers in the dozens. The arsenals of France and the UK number in the low hundreds; while those of the US and Russia are in the low thousands, and are dropping toward the high hundreds. At least one analyst has argued that China's commitment to NFU is grounded in its decision to "refrain from expanding the size of its nuclear arsenal, regardless of the security environment it has faced over the years."²³⁶ This begs the question: now that the decision to expand its arsenal is well under way, will China – in response to changes both in its own capabilities, and in the nature of the security environment it now faces – revisit its NFU pledge?

There are valid reasons to be concerned about Beijing's commitment to this element of its declaratory policy. Some observers have drawn a distinction between China's NFU pledge and its promise never to use or threaten to use nuclear weapons "against non-nuclear weapon states or in nuclear weapon-free zones" – an undertaking generally referred to as a negative security assurance, or NSA. Beijing's 2006 Defence White Paper characterizes the NSA as an "unconditional pledge", whereas China has stated that is "firmly committed" to its NFU policy. According to one US analyst, "one does not need to be an international lawyer or grammarian to understand that a 'firm commitment to policy' is not as strong a position as an 'unconditional pledge'."²³⁷ This is a valid point. Moreover, it is worth noting that concerns about translation do not necessarily apply; the English translations of China's Defence White Papers are prepared exclusively for Western consumption as an exercise in declaratory policy, and it may therefore be assumed that they were crafted with an eye to careful and precise expression. It is also worth noting that the language in the 2008 iteration of the Defence White Paper changed slightly; while China still promises that it "will unconditionally not use or threaten to use nuclear weapons against non-nuclear-weapon states or in nuclear-weapon-free zones", Beijing in 2008 stated that it

²³⁴ Sun Xiangli, 3.

²³⁵ Neill, *Background and benchmark*, 14-15.

²³⁶ Sun Xiangli, 2.

²³⁷ Wortzel, 15-16.

is “committed” – rather than “firmly committed”, as was the case in 2006 – to its NFU policy.²³⁸ To take the argument posited by the above-mentioned US analyst a step further, one does not need to be a lawyer or grammarian to understand the implications of downgrading a “firm commitment” to a “commitment.” Two data points are sufficient to identify a trend. In the 2010 edition of the White Paper, meanwhile, Beijing has stated that “China consistently upholds the policy of no first use.” It is not readily apparent whether “upholding” a policy is more or less definitive than an “unconditional pledge” or a “commitment”, however “firm.”²³⁹

The role of China’s NFU pledge as a means of scoring political points has received insufficient attention. It is a principle of international discourse that sovereign states give full faith and credence to each others’ political pronouncement, but it strains credulity to suggest that, to borrow an Orwellian adage, all animals are equal in fact as well as in principle. Any truly objective assessment of the credibility of a political position or promise must take into consideration its source. In this context, it is interesting that Chinese analysts are quick to point out that the moral high ground aspect of no first-use creates two classes of states:

The NFU divides the ‘nuclear haves’ into two classes: a more moral group with no-first-use policies and a less moral group with first-use or conditional no-first-use. Among the P5, the former Soviet Union and China were two states that belonged to the NFU category, while the other three fall into a different group.²⁴⁰

The fact that the NFU pledge was adopted by the totalitarian communist regimes in Moscow and Beijing and eschewed by the liberal democratic governments in Washington, London and Paris should tell us something about the value of such promises. In fact, Beijing’s commitment to NFU is probably informed largely (if not exclusively) by political considerations. One of the foremost of these may be the fact that dropping the pledge, as some senior Chinese military analysts have advised, would be inconsistent with China’s overarching political strategy and its preferred public image of a nation that is engaged in a ‘peaceful rise’.²⁴¹ The diplomatic value of the moral high ground outweighs the dubious benefits likely to accrue if China were to abandon its NFU pledge – especially as the commitment, like all policy commitments, could be abandoned on a moment’s notice if it were to suddenly become impractical or inconvenient.

Beyond purely political considerations, of course, there are a number of strategic justifications underlying China’s NFU pledge. In her testimony to Congress in the late 1960s, Alice Langley Hsieh explained the early rationale behind Beijing’s policy:

...the position that the Chinese have taken on the no-first-use of nuclear weapons suggests that China may see in the possession of a nuclear capability a means of enhancing the role of their conventional forces. The Chinese may believe that the threat of China’s conventional involvement under a nuclear umbrella may make

²³⁸ *China’s National Defense in 2008*, chapters IV and XIV.

²³⁹ *China’s National Defense in 2010*, chapter II.

²⁴⁰ Shen Dingli, “Nuclear Deterrence in the 21st Century”, *China Security*, No. 1 (Autumn 2005), 11. One might equally suggest that there are two different classes of states: a class that runs over peaceful protestors with tanks, and a class that does not.

²⁴¹ Baohui Zhang, 175.

the United States reluctant to intervene in local crisis situations for fear either of ground confrontation with the Chinese or escalation to the nuclear level.²⁴²

The strategic circumstances that led to this calculus have not changed substantially in the intervening decades; thus it is unlikely that the calculus has changed substantially. While never terribly realistic in the context of the allegedly imminent US invasion of mainland China or the nuclear war of extermination that Mao's regime routinely accused Washington of plotting to launch, the possibility of a Sino-American confrontation over Taiwan has been very real for at least four decades. While China could not hope to defeat the US in a nuclear exchange, it could certainly raise the cost of US intervention in a cross-Strait conflict, possibly – and possibly very quickly – beyond the point at which a war effort could be sustained. It is unlikely that the American people would be willing to accept the risk of losing even a single major city in order to keep Taiwan independent of Chinese communist domination.

The threat of a Chinese counter-value attack naturally raised the question of obviating that threat through pre-emptive counterforce strikes. This option was mooted early on in the US. In 1972, for example, an analyst writing in *Foreign Affairs* noted that “a first strike could very largely eliminate China’s nuclear capabilities,” and that this made Beijing’s NFU pledge a smart political move:

In so far as a solemn declaration foreswearing first use tends to make it morally more difficult for others to use nuclear weapons against China, the P.R.C. continues to be well served by it. Moreover, it is also self-evident that, given the marked disparities between the Chinese nuclear force as it will be for the rest of the 1970s and the forces possessed by the United States and the Soviet Union, first use by China against either ‘nuclear superpower’ (a term the Chinese use only derogatorily) would be suicidal.²⁴³

This analysis highlights once again the contention that China’s NFU pledge constitutes little more than dressing up a strategic necessity as a moral imperative. It also suggests that China’s nuclear strategy has long been founded not on traditional force-versus-force deterrence, but rather on what has been called ‘counter-coercion’. This sort of strategy goes only a little further than the traditional definition of minimal deterrence, and contemplates possession of small numbers of nuclear weapons; relatively few varieties of weapons; ‘rolling deployment’, a concept under which, as noted above, weapons are fielded as they become operationally viable, with deployment ceasing once the technology is mature; operational status based on ‘de-alerting’, with warheads stored separately from missiles or other launch systems; and a policy of ‘late retaliation launch’, which would envision riding out a first strike and conducting a retaliatory strike up to one week after having come under nuclear attack.²⁴⁴ While this sort of strategy might be realistic vis-à-vis a nuclear armed peer competitor whose capabilities are more or less on a similar plane (e.g., India), it is less likely to be viable with respect to a major nuclear power like the US or Russia – if for no other reason than the fact that, one week into a high-intensity shooting war with a state possessing

²⁴² Hsieh, “Statement before the Subcommittee on Military Applications”, 18.

²⁴³ Richard H. Ullman, “No First Use of Nuclear Weapons”, *Foreign Affairs*, July 1972. [www.foreignaffairs.com/print/24355]. Accessed 2 November 2010.

²⁴⁴ Li Bin, 6.

advanced conventional military capabilities, China would be unlikely to have any strategic weapons left.

Debate over the continued viability of the NFU pledge is nothing new; many Chinese analysts, particularly those of the uniformed persuasion, have been calling for review and reinterpretation of the policy since the late 1970s. In recent years, the calls have ranged from proposals for modification, if not necessarily renunciation²⁴⁵, to suggestions that Beijing needs to be more forthright in describing the conditions under which nuclear use would be considered – “for example, if an enemy’s conventional attack threatened the survival of China’s nuclear force, or of the regime itself.”²⁴⁶ This latter approach would be more in line with the new interpretation of the venerable strategy of ‘active defence’ as outlined in the 2008 and 2010 White Papers, which in the view of the US Department of Defense “posits a defensive military strategy in which China does not initiate wars or fight wars of aggression, but engages in war only to defend national sovereignty and territorial integrity.”²⁴⁷ This is if anything an overly benign interpretation of a concept that, according to what Chinese military thinkers have written, actually contemplates a broader array of potential offensive actions than the term implies. The argument that a strategy of ‘active defence’ implies that China would only consider nuclear use if its national territory or sovereignty were threatened may be logical on the face of it, but ignores what Beijing means by ‘sovereignty’ and ‘territory’. Such arguments create a possibly artificial (and artificially clear) boundary between actions that might invite nuclear use and actions that might not; and they posit, without empirical proof, the existence a fundamental tension between the proponents of transparency and those of ambiguity, who argue that any “[a]ttempt to define the boundary of NFU weakens the nuclear taboo.”²⁴⁸

The suggestion that China’s leadership should outline circumstances under which nuclear use might be considered naturally begs the question of what Beijing would consider “first use.” Successive White Papers have been unclear on this point, stating only that China adheres to a strategy of “attacking only after being attacked.”²⁴⁹ As Fravel and Medeiros note,

It remains unclear whether China would need to be attacked with a nuclear weapon to retaliate in kind.... Some Chinese sources indicate that credible early warning of a pending attack would be sufficient to prompt a nuclear response. Other Chinese sources indicate that high-powered conventional attacks on Chinese nuclear forces or attacks that generate weapons of mass destruction-like effects (e.g., destroying the Three Gorges Dam) could prompt a nuclear response from China.”²⁵⁰

This is obviously another area of interest to strategists where China’s approach is intimately impacted by unique contextual determinants that may not be readily apparent to outside observers. There is no question that Beijing’s vagueness on this score is deliberate, or that the regime’s understanding of what would constitute ‘first use’ is not necessarily consistent with

²⁴⁵ Zhang, 165.

²⁴⁶ Office of the Secretary of Defense, *Annual Report to Congress: Military and Security Developments Involving the People’s Republic of China 2010*, 35.

²⁴⁷ *ibid.*, 22.

²⁴⁸ Li Bin, 7.

²⁴⁹ *China’s National Defense in 2010*, chapter II.

²⁵⁰ Fravel and Medeiros, 80.

what, for example, Washington or Moscow might consider ‘first use’. An attack against China’s interests that had a disproportionate strategic effect, for example, might be deemed worthy of a nuclear response even if the attack was carried out with conventional weapons. In such circumstances, it becomes necessary for the adversary facing a potential Chinese response to calculate *ante facto* the potential impact of any proposed military operation.

One obvious example would be the use by the US, in time of severe crisis and in anticipation of a Chinese nuclear attack, of advanced conventional attacks to eliminate as much of China’s strategic retaliatory capability as possible. This would require destroying, as a priority, those weapon systems capable of reaching the continental United States quickly (all deployed DF-5A and DF-31/31A ICBMs) or after a submarine cruise (the single *Xia* SSBN or its *Jin* successor); and those capable of directly targeting key US facilities in the Western Pacific and/or key US allies (the DF-3A and DF-4 MRBMs, DF-21 IRBMs and the H-6K bombers capable of carrying cruise missiles). The immediate strategic target set probably consists of 40 mobile and static ICBM launchers and a single submarine – a complex but probably not insurmountable tactical problem for the US military even if restricted to only conventional weapons. The strategic impact of such a series of conventional strikes, however, would be severe, and except in terms of collateral damage, would from Beijing’s perspective be “indistinguishable from a disarming nuclear strike.” The question, therefore, is whether China’s NFU policy is, in the face of such a capability, still tenable.²⁵¹ Such calculations invariably ignore the next step, which would be for China to launch, as it has threatened to do, a counter-value response with whatever assets remain available to it. It is not clear that, having lost most of its strategic weaponry to a low-lethality conventional attack, it would be logical for Beijing to use its last few strategic weapons to destroy a US city, knowing that America’s next step would be a crushing counter-value response. The *reductio* of such arguments always leads to the same place: that for a vastly more powerful nuclear-armed state, massive retaliation is always an option. This argument, of course, only holds true as long as there remains a significant disparity between the nuclear capabilities of the adversaries. Current trends are narrowing the gap.

Conventional attacks against China’s strategic assets are not the only contingency that might trigger nuclear use. The US DOD perceives “some ambiguity over the conditions under which China’s NFU policy would apply, including, for example, whether strikes on what China considers its own territory, demonstration strikes, or high-altitude bursts would constitute a first use.”²⁵² The ‘active defence’ principle, for example, advocates “striking and getting the better of the enemy only after the enemy has started an attack,” but is less categorical as to what constitutes an attack, and specifically contemplates “the flexible use of different means of deterrence.”²⁵³ ‘Active defence’ deliberately conflates the military, diplomatic, economic, cultural and legal aspects of a conflict and advocates what in the West has in recent years come to be called a comprehensive or whole-of-government approach to conflict situations. In such a strategic environment, an attack on one of these fronts could be met by a response in any of the comprehensive spheres of activity, and the more severe the attack, the more severe the likely response.

²⁵¹ Yoshihara and Holmes, 37-38.

²⁵² Office of the Secretary of Defense, *Annual Report to Congress: Military and Security Developments Involving the People’s Republic of China 2010*, 35.

²⁵³ *China’s National Defense in 2008*, Section II.

In this context, an comprehensive assessment of China's vital strategic interests becomes important. According to the 2008 White Paper, these are "the protection of national sovereignty, security, territorial integrity, safeguarding of the interests of national development, and the interests of the Chinese people."²⁵⁴ The list in the 2010 White Paper, incidentally, is the same, but more emphasis and detail are provided with respect to what Beijing has labelled "separatist forces."²⁵⁵ It is not difficult to envision circumstances where one or more of these might be threatened. A declaration of independence by Taiwan, for example, could easily be deemed by the regime to constitute a threat to national sovereignty, territorial integrity, and even the 'interests of the Chinese people', broadly defined. A strategic reverse in a territorial or border dispute could be deemed to threaten the same interests. A severe economic crisis disproportionately impacting China could be deemed to threaten national development. Assuming there were an identifiable culprit, China's present strategic doctrine could interpret any such event as an attack, triggering "defensive operations, self-defense and striking and getting the better of the enemy."

The insertion of a new degree of strategic flexibility as regards China's nuclear assets is also getting more play in official circles. This, as one author notes, is a relative novelty, a significant change after a long period of treating the topic of nuclear strategy as off-limits for those not in official government circles:

The continuity of China's no-first-use principle is also the result of the absence of policy discussions on nuclear doctrines. Until the 1990s civilian experts on foreign policy and national security, who were based in universities and research institutes, were largely excluded from policy deliberations. In the last ten years or so the situation has changed dramatically. The Chinese government now routinely solicits opinions from civilian experts on its foreign and security policies. However, nuclear doctrinal issues have remained a taboo area.²⁵⁶

This seems to be changing. Academics, as opposed to merely military officials and crafters of public policy, have begun to discuss nuclear issues in open literature. Even government officials are becoming more open²⁵⁷; in recent years, certain exceptions to China's NFU pledge have been made by Chinese officials in unofficial remarks.²⁵⁸ Some of these have been low-key and benign, others rather more outré. The more controversial the exceptions, the more quickly and comprehensively the remarks have been disavowed. Clearly there is something going on.

The US DOD – admittedly a not entirely objective source – argues that the most important part of the phrase 'active defence' is the adjective rather than the noun. US assessments of Chinese doctrinal writings have led the DOD to conclude that "striking only after the enemy has struck does not mean waiting for the enemy's strike passively....It doesn't mean to give up the 'advantageous chances' in campaign or tactical operations, for the 'first shot' on the plane of politics must be differentiated from the 'first shot' on the plane of tactics." This suggests that Chinese interpretations of the implications of 'active defence' mean that "if any country or

²⁵⁴ *China's National Defense in 2008*, Section II.

²⁵⁵ *China's National Defense in 2010*, chapter II.

²⁵⁶ Baohui Zhang, 166.

²⁵⁷ Bates Gill, James Mulvenon, and Mark Stokes, "The Chinese Second Artillery Corps: Transition to Credible Deterrence", in *The People's Liberation Army as an Organization: Reference Volume v1.0*, eds.

James C. Mulvenon and Andrew N.D. Yang (Washington, D.C.: The Rand Corporation, 2002), 516.

²⁵⁸ Chase, Erickson and Yeaw, 96.

organization violates the other country's sovereignty and territorial integrity, the other side will have the right to 'fire the first shot' on the plane of tactics."²⁵⁹ This interpretation, if accurate, clearly implies that Beijing would consider any foreign engagement in what China considers to be a matter of sovereignty or territorial integrity – a category that includes Taiwan, the Senkaku/Diaoyu Islands, the Spratly/Nansha Islands, disputed borders with India and Russia, and other contested areas – could invite the full range of responses, possibly including nuclear use.

The Taiwan issue, which will be discussed at greater length in a later paper in this study, lies at the heart of concerns, both internal and external to China, over the continuing viability of Beijing's NFU pledge. Taiwan represents two vital national interests for China: over the longer term, the reincorporation of the island into the political structure of the mainland is a key political goal; while over the near term, the regime has defined the avoidance of a unilateral declaration of independence as a vital national interest. As a consequence of the emphasis that Beijing has placed on the question of Taiwan's future and the gradual emergence of nationalism alongside Maoism as a key national animating sentiment, it is widely assumed that either a declaration of independence by Taipei, alone or in company with a successful US intervention in a cross-Straits conflict leading to *de jure* Taiwanese independence under US sponsorship, would imperil the CPC regime in Beijing.

A recent analysis of China's NFU policy argued that because either of these outcomes would "jeopardize the most essential national interests of China...when a war in the Taiwan Strait looks imminent, China will be under tremendous pressure to rely on nuclear deterrence to prevent these worst case scenarios," as either of them "could trigger a collapse of the regime."²⁶⁰ This in turn suggests that, from Beijing's perspective, continuity of the CPC regime is a key – perhaps the key – vital national interest worthy of protection. The same analyst continues:

It is highly reasonable to assume that Chinese leaders, when facing imminent American intervention in the Taiwan Strait, may just choose a flexible approach to the no-first-use policy, since the consequence of not doing so could result in the worst possible military and political scenarios for China.²⁶¹

Given the potential consequences of failure in a regime-defining crisis, China's leaders could well be "willing to separate the declared nuclear policy from what China may actually do in war situations."²⁶² Or, in other words, a policy is just a policy; it is *capability* that matters.

This is a critical conclusion, and one that parallels conclusions drawn from the history of the US-Soviet nuclear rivalry. In the foundational paper for this study, I defined policy as "the stated intent of government", and declaratory policy as that subset of policy that a government publishes in open literature. Doctrine was defined as how the military forces of a state intend to fight in the event they are called upon to exercise their mandated function; while strategy was defined not as what a state would like to be able to do, but rather what, in the context of its "technological capacity, force structure and posture, weapons systems...military R&D...location and geography, its people and resources, its neighbours, and its past and present conduct," it can and ought to do,

²⁵⁹ Office of the Secretary of Defense, *Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2010*, 24.

²⁶⁰ Zhang, 165.

²⁶¹ Zhang, 176.

²⁶² Zhang, 176.

or not do.²⁶³ The foregoing discussion of China’s NFU pledge, however – and the likelihood that Beijing, faced with a crisis sufficiently threatening to China’s national interests, would discard that pledge – demonstrates that, in addition to what a state can and ought to do (strategy), what it hopes to do (policy), and how it intends to fight (doctrine), there is a fourth category: what the state **actually does**.

Since it is impossible to predict the future, and because decisions are made by individuals whose reactions in time of crisis are likewise unpredictable, this fourth category may only be defined after the fact, on the basis of empirical observation of state conduct in time of crisis. To date China has never been faced with a crisis that has resulted in abandonment of the NFU pledge. By the same token, however, China has also never been faced with a crisis that posed a serious threat to its sovereignty, national security, economic development, territorial integrity, the “interests of the Chinese people”, or the survival of the CPC regime. Given that Beijing has itself stated that it places the protection of these interests above all else, it is not unreasonable to assess that ‘all else’ includes self-imposed constraints on the employment of available assets the use of which could mean the difference between success and failure.

In her 1984 treatise, *The March of Folly*, Barbara Tuchman described ‘self-interest’ as “whatever conduces to the welfare or advantage of the body being governed,” and “folly” as “a policy that in these terms is counter-productive.”²⁶⁴ The CPC regime in Beijing has been guilty of many things since 1949, including but not limited to gross violations of human rights, fomenting self-imposed, sanguinary socio-cultural convulsions, adopting economic policies that led directly to the death of millions of its citizens – but in the nuclear arena at least, it has yet to be credibly accused of making decisions demonstrably inconsistent with its own self-interest. If faced with a threat to its own existence, it seems unlikely that the regime would choose adherence to its NFU pledge over survival.

From Beijing’s perspective, the NFU pledge is a pragmatic policy response to objective strategic conditions. Despite the moral connotations attending the pledge, it no more constitutes a seizure of the alleged moral high ground than would an earnest pledge by a welterweight boxer to the world heavyweight champion never to throw the first punch. It is a highly symbolic gesture, and has no stabilizing value in the East-West deterrent calculus, as “it is not verifiable and any violation of the pledge would not be detected until it is too late.”²⁶⁵ While perhaps once useful, the realities of contemporary conflict have left the NFU policy adrift. The US, China’s most likely strategic adversary, now has the ability to inflict significant damage on China without using nuclear weapons, and (absent some unforeseeable circumstance) has no interest to protect and nothing to gain by playing to China’s strengths by launching a ground invasion of the Chinese mainland. China now faces a number of unpalatable choices. It can attempt to match the US in conventional military capability; vastly expand its strategic arsenal (and trust to the present and future US administrations to continue to reduce America’s strategic arsenal) in order to obviate NFU as a strategic necessity; abandon the NFU pledge as unworkable, either openly or tacitly; or figure out how to outflank Washington’s conventional military advantage in those operational areas where China’s vital interests are most likely to come under threat. At present, the CPC regime in Beijing appears to be following the second and fourth options.

²⁶³ Neill, *Background and benchmark*, 2-3.

²⁶⁴ Barbara Tuchman, *The March of Folly from Troy to Vietnam* (New York: Ballantine Books, 1984), 5.

²⁶⁵ Gill, Mulvenon and Stokes, 516.

For the time being, Beijing has everything to gain and nothing to lose by maintaining NFU as a key element of its declaratory nuclear policy, as doing so allows the CPC regime to take the moral high road while retaining the option of abrogating the policy at any time. In combination with minimal/limited deterrence, NFU allows Beijing to avoid having to make the significant changes to its nuclear policy that the open pursuit of any approach other than NFU would dictate. China, for example, possesses neither the quantity nor the quality of nuclear forces necessary to a policy of nuclear pre-emption; it cannot adopt a policy of launch-on-warning, as it does not have the requisite suite of surveillance assets necessary to detect an attack before the detonations begin; and it cannot adopt a policy of launch-under-attack, as Beijing, for reasons of security, safety and incapacity, keeps its warheads separated from its missiles, its SSBNs out of range of likely US targets, and its longest-range strategic missiles unfuelled. In short, China's NFU pledge constitutes a long-standing policy of ascribing virtue to a strategic necessity, while reserving the right to use nuclear weapons in carefully circumscribed circumstances where China's vital national interests are at stake, and where, therefore, it would be both logical and necessary to do so. The pledge therefore consists of nothing more than a promise the China will never be the first to use nuclear weapons, except in those specific circumstances where it would make the most strategic sense for China to be the first to use nuclear weapons. The fact that this almost by definition makes the NFU pledge an empty gesture has not prevented Beijing from enjoying the praise of individuals, groups and states that are either unaware of the objective realities of the Sino-American strategic relationship, or that, by virtue of their dogged antipathy towards the US, are simply uninterested in them.

Faced with defeat in a conventional conflict over a matter impinging upon its vital national interests, would Beijing accept all of the anticipated internal consequences of failure, or would the regime, *in extremis*, fall back on its nuclear capability, and risk inviting an overwhelming and potentially devastating response? It is impossible to say. Beijing might prefer to signal its intentions with a nuclear strike against a theoretically deniable target – for example, rather than striking a US carrier battle group, Beijing might destroy a large ROC military installation on Taiwan, claiming the attack as a strike on Chinese territory. Such a move might be sufficient to deter a nervous US administration; but if it were not, then the question becomes, what next?

It is likely that the Chinese leadership would prefer to avoid escalating a conflict with a more powerful, nuclear-armed rival, but its ability to do so will depend on whether Beijing is able to decouple the outcome of the crisis from its own prospects for political survival. This will not be easy to do, especially with respect to threats against interests that the regime has defined as vital, and that Beijing has repeatedly used to excite nationalistic sentiment. The key concern in this connection is of course Taiwan, concerning the future of which the CPC regime has repeatedly and explicitly nailed its colours to the mast. This linkage could put Beijing – and with it the rest of the world – in a very uncomfortable position if the situation in the Strait were ever to come to blows.

4.2 Strategic arms control

There is a general belief in the peaceful character of the Chinese regime based on no more solid evidence than the natural desire of the peoples concerned and

*on the Chinese rulers' skill in using the term 'peace' with all the ambiguity which attaches to it in communist doctrine.*²⁶⁶

The official statement of the CPC regime on the occasion of China's first atom bomb test made a number of references to the nuclear arms control and disarmament. The statement asserted that "to safeguard world peace is the common task of all peace-loving countries," and declared that Beijing had "consistently advocated the complete prohibition and thorough destruction of nuclear weapons." Arms control endeavours entered into to that point by the various NWS, the statement averred, had been nothing more than a sham. According to Beijing, the Partial Test Ban Treaty (1963) was "a big fraud to fool the people of the world" that was in reality "an attempt to consolidate the nuclear monopoly of the three nuclear powers and tie the hands of all peace-loving countries." China was developing nuclear weapons precisely to "break the monopoly of the nuclear powers and eliminate nuclear weapons." To this end, the government of China would "as always, exert every effort to promote, through international consultations, the realization of the lofty aim of complete prohibition and thorough destruction of nuclear weapons."²⁶⁷

China's rhetoric on arms control since that first nuclear test has remained remarkably consistent. The 2008 White Paper, for example, reiterates what has become a common call for comprehensive nuclear disarmament: "China holds that all nuclear-weapon states should make an unequivocal commitment to the thorough destruction of nuclear weapons, undertake to stop research into and development of new types of nuclear weapons, and reduce the role of nuclear weapons in their national security policy."²⁶⁸ (The 2010 White Paper contains similar language.) In this vein, China, despite being the most recent state to be accorded a permanent seat on the UN Security Council, in part because of its possession of nuclear weapons, declines to take the first step; the policy goes on to assert that "[t]he two countries possessing the largest nuclear arsenals bear special and primary responsibility for nuclear disarmament." These countries – the US and Russia, of course, although they are not named in the document – are called upon to "further drastically reduce their nuclear arsenals in a verifiable and reversible manner, so as to create the necessary conditions for the participation of other nuclear-weapon states in the process of nuclear disarmament."²⁶⁹ Given that China operates what may be the most opaque and non-verifiable nuclear weapons establishment in the world; that it has never officially confirmed the size of its arsenal; and that, apart from the DPRK, it is the only NWS that is at present increasing the size and capability of its strategic forces, such policy statements demonstrate the transmissibility to the diplomatic sphere of the military principle that the best defence is a good offence.

Its regular pronouncements and condemnations notwithstanding, China's post-1964 commitment to nuclear non-proliferation, arms control and disarmament (NACD) has been largely oratorical rather than concrete, and has been driven – like all other aspects of its policy – by practical rather than altruistic motivations. Despite deriding nuclear weapons as "paper tigers" and disparaging them as inferior to the power of an aroused proletariat, China under Mao called routinely for universal disarmament, probably out of fear of the impact that an "early total nuclear strike"²⁷⁰ would have had on China's plans for industrialization. Calls for universal disarmament are a

²⁶⁶ Kissinger, 323-324.

²⁶⁷ "The Atomic Bomb: Statement of the Government of the People's Republic of China, October 16 1964".

²⁶⁸ *China's National Defense in 2008*, 51; and *China's National Defense in 2010*, Section X.

²⁶⁹ *Ibid.*, 51. The 2010 white paper also requires that the reductions be "legally binding."

²⁷⁰ Rajain, 113.

logical tool for non-nuclear powers and emergent NWS; they are perceived as a means of diminishing disparities in the respective size and capability of arsenals, both through actual reductions in stockpile sizes and delivery systems, and also through a perceived process of what has in recent years been referred to as ‘denormalization’ (despite the lack of any evidence that such moral arguments affect the strategic calculus of rational states. They certainly have not, for example, affected Beijing’s strategic calculus one whit).

In fact, China’s approach to nuclear NACD has never been smooth or free from equivocation. In his first speech to the UN General Assembly on 15 November 1971, for example, China’s Vice-Foreign Minister stated that “China’s nuclear weapons are still in the experimental stage and China would never take part in the socalled [sic] nuclear disarmament talks behind the backs of the non-nuclear power [sic]”, and urged the member states not to put the question of arms control and disarmament talks to a vote.²⁷¹ Such interventions demonstrate that China, allegedly a proponent of universal disarmament, was by this point more interested in expanding its nuclear capabilities than using its slowly-growing arsenal as a tool to advance the disarmament process. This was not a surprising position for Beijing to take; adherence to arms control treaties and regimes is counter-indicated for a new nuclear power attempting to grow its stockpile. As the analysis in the first paper in this study demonstrates, a new NWS gains an existential deterrent capability merely through the fact of possession of a nuclear weapon and the capability to deliver it against an adversary state, but is not in a position to impose an alteration in the nature of the strategic relationship until it has achieved essential equivalence vis-à-vis a potential adversary.²⁷²

That analysis also demonstrated that essential equivalence can be achieved with a very modest arsenal; the US, for example, began rethinking Massive Retaliation in the late 1950s, when it still had a 10 to 1 advantage both in overall warhead numbers and in deliverable strategic nuclear warheads. We may therefore posit a period of strategic unease on the part of an emerging NWS, between its initial acquisition of an existential deterrent and the expansion of that deterrent to a state of essential equivalence. During this period, the new NWS is vulnerable because its strategic capacity is sufficient to threaten and alarm a more capable adversary, but not sufficient to reinforce deterrence by ensuring a survivable second-strike capability. A rational state would attempt to minimize the duration of this period of vulnerability by building rapidly towards essential equivalence while employing alternative means to minimize risk. One obvious means would be to enter into an alliance with another, more capable NWS sharing a common adversary; others would be to use diplomacy to assuage strategic concerns, minimize friction, and prevent adverse consequences (e.g., international arms control efforts) from constraining one’s build programme. China employed all of these methods, using rapprochement with the US under Nixon both to assuage American concerns and to balance with the USSR, with whom it had only recently engaged in serious border clashes; and wielding its new diplomatic influence in the UN to stymie rather than encourage nuclear NACD efforts. This represented a continuation of rather than a new direction in China’s policy; Beijing had already objected, on national security grounds, to the 1963 Partial Test Ban Treaty, the 1967 Treaty on the Peaceful Uses of Outer Space, and the 1971 Seabed Treaty. Beijing also refused a 1971 invitation from the USSR to

²⁷¹ Cited in S.K. Ghosh, “China’s Nuclear Weapons Programme and Strategy”, in Ghosh and Sreedhar, 71-72.

²⁷² Neill, *Background and benchmark*, 14-16.

“discuss nuclear disarmament of all states in possession of nuclear weapons” – something that China’s official arms control policy had explicitly called for.²⁷³

Despite the Nixon-Mao détente, China also strongly criticized the 1972 SALT-I agreement and the 1973 US-Soviet agreement on the prevention of nuclear war. Commenting on the SALT treaty, China’s Premier, Zhou Enlai, refuted suggestions that the talks were a step towards ending nuclear competition, stating that they were instead a drive for nuclear superiority, an attempt to “intensify their arms expansion and war preparations, to set up military bases of all descriptions and to station armed forces in other countries and to direct nuclear blackmail and nuclear threats against the people of all countries.”²⁷⁴ This was essentially a reiteration of the 1964 position that arms control efforts were a “big fraud” the purpose of which was to cement the nuclear monopoly of the other NWS, and it confirms the impression that China’s position on nuclear NACD was, during its years as an emerging NWS, remarkably consistent: verbally, “an idealism that is guided by high moral posturing on nuclear disarmament,” but in practice “a policy firmly grounded in the pragmatism of maintaining and modernizing the nuclear arsenal.”²⁷⁵

Proponents of political theory have a tendency to erect artificial barriers between rhetoric and reality; no less an authority than Raymond Aron, for example, saw China’s early pronouncements on nuclear disarmament as attempt to rectify the “position of moral inferiority” in which Beijing found itself.²⁷⁶ It does not seem logical to view declaratory policy as somehow separate from the actual activity of a NWS when the state that is developing the policy and engaging in the activity in question does so as a unitary political entity. It is perhaps more appropriate to view such apparently disparate activities as a simultaneous advance on different fronts, with political emphasis accorded to each proportional to the perceived likelihood of success. One of China’s early successes in this regard was achieved from the outset when it established the principle that the NWS with the largest arsenals bore (as the citations from the 2008 and 2010 White Papers put it) “special and primary responsibility” for nuclear disarmament.²⁷⁷ This principle, a patent non sequitur, has endured unchanged even in contemporary nuclear NACD discussions – even to the UN’s Conference on Disarmament, where China continues to attempt to link acceptance of constraints on its own arsenal to US agreement to constrain strategic force modernization.²⁷⁸ This despite the fact that the US is reducing its strategic forces, while China continues to expand its own.

Lewis has described this attempted linkage as “largely symbolic”, but this is a canard. China’s arms control rhetoric has for decades been largely divorced from reality. This is not symbolism, but cynicism; a recognition by Beijing that it can say one thing and do another, and that it will not

²⁷³ Ghosh, 71.

²⁷⁴ Ghosh, 72.

²⁷⁵ Rajain, 129.

²⁷⁶ Raymond Aron, *The Great Debate: Theories of Nuclear Strategy*, trans. Ernst Pawel (New York: Doubleday and Company, Inc., 1965), 232.

²⁷⁷ It is perhaps indicative of human tolerance for cognitive dissonance that the Western political left, who at the time of China’s H-bomb test and its accession to the UN were arguing that “fighting for peace is like fighting for virginity”, did not add an extended corollary expressing the similar illogic inherent in China’s argument that it was “arming for disarmament.” The unwillingness of the left to challenge China may also have been a consequence of an inexplicable political sympathy which was largely unaffected even by the atrocities of the Great Leap Forward and the Cultural Revolution.

²⁷⁸ Lewis, *The Minimum Means of Reprisal*, 199.

be called to account by the West. The US nuclear arsenal reached its apex in the same year that China conducted its first H-bomb test, and with the exception of a brief expansion during the Ford and Carter Administrations, the US arsenal has been shrinking steadily ever since. It plummeted by 50 percent during the Clinton Administration. China, by contrast, has been expanding its nuclear forces for decades. Such exercises in linkage are therefore not symbolic; they represent the continuation of Beijing's long-standing policy of enhancing China's strategic position on multiple fronts, using diplomacy to mitigate the disparity in capability between itself and its adversaries, and wielding its influence in international fora to attempt to seize the moral high ground and paint itself as ethically superior to its adversaries.

The dichotomy in China's use of moral arguments is revealed by the fact that Beijing "strongly condemned" the 1998 nuclear tests by India, a traditional adversary, while expressing only "deep regret" over the response by its client state, Pakistan.²⁷⁹ This nicely-calculated use of diplomatic language demonstrates China's realistic approach to nuclear weapons: to bowdlerize an Orwellian phrase, all nuclear weapons are equally bad, but some are more equally bad than others. This sort of equivocation is a routine feature of China's NACD policy; Beijing, for example, has accused the US of hypocrisy for engaging in arms transfers to Taiwan and Japan while simultaneously opposing Chinese arms transfers to Iran, Syria and Pakistan.²⁸⁰ When calculating alliances, associations and assistance, Beijing does little better than other states at assessing the nature and reliability of regimes, having for example assisted both Iran and Pakistan in recent years with the acquisition nuclear technology.²⁸¹ China's record of transgressions against the Missile Technology Control Regime, its long history of nuclear and industrial espionage against the United States and other states, and its provision of nuclear weapons and ballistic missile assistance to, *inter alia*, Pakistan further undercut its moral authority as a supposed advocate of the international NACD regime.²⁸²

In essence, Beijing appears to view nuclear NACD not, as it claims, as a moral imperative to realize "the lofty aim of complete prohibition and thorough destruction of nuclear weapons" (1964) or to establish a world-wide "unequivocal commitment to the thorough destruction of nuclear weapons" (2008), but rather as simply another diplomatic lever to be used at will to improve its strategic position. Altruistic pronouncements are intended for public and international consumption, but in practice they take a back seat, as they have always done, to rational calculation. Some Chinese analysts have advocated being more transparent and up-front about this, arguing that where China's "moral responsibility" and arms control obligations are concerned, "China should learn how to maintain necessary flexibility without being fettered by responsibilities and obligations at the level of strategic deterrence."²⁸³ This is an eloquent way of saying that China should continue to engage in arms control agreements but feel free to ignore the obligations deriving therefrom that would stymie its strategic interests. Such realistic appraisals of the cavalier manner in which unfree governments view international legal obligations naturally make one sceptical about the likelihood that further arms control agreements will enhance international security. Lewis, for example, has argued rather implausibly that a formal no first-use agreement between China and the US "would enshrine mutual deterrence, much as the 1972

²⁷⁹ Rajain, 127.

²⁸⁰ *Ibid.*, 172-73.

²⁸¹ Rajain, 178-180.

²⁸² *Ibid.*, 132.

²⁸³ Wang Zhongchun, 62.

ABM Treaty did for the United States and the Soviet Union.”²⁸⁴ Setting aside the questionable argument that the ABM Treaty enshrined anything, let alone mutual deterrence,²⁸⁵ it is highly doubtful that a wholly non-verifiable, purely diplomatic agreement between a liberal democracy and a communist dictatorship would be any more likely to achieve significant practical advances in international security than the *Biological and Toxin Weapons Convention* (1972) or the *Chemical Weapons Convention* (1993) – both of which the USSR (in the case of the BTWC) and Russia (in the case of the CWC), as member states, repeatedly violated. The fact that, as pointed out above, a NFU pledge is a matter of policy that is subject to change without warning makes such agreements even less useful than concrete, verifiable NACD agreements.

Other suggested arms control remedies may, as has so often happened in the past, be overtaken by technological developments. China, like the US, has signed the Comprehensive Test Ban Treaty (CTBT – neither has yet ratified it). This has led some observers to posit that “China’s signature of the CTBT means that Beijing continues to accept the constraints imposed on its ability to test, a critical step in the development of new nuclear weapons, especially the miniaturization of nuclear warheads for new ballistic missiles currently under development.”²⁸⁶ This is not necessarily the case. Western proponents of the CTBT have argued that the US need not fear ratification, as new warhead designs may be tested by computer modelling – and China, in October 2010, announced that it had developed the fastest computer in the world. According to news reports, the *Tianhe* (Milky Way)-1A, at 2.5 petaflops (2.5 trillion calculations per second) is 47 percent faster than the 1.7 petaflops recorded by the *XT5 Jaguar* at the Oak Ridge National Laboratory in Tennessee²⁸⁷ – which, perhaps not coincidentally, is the facility that performs high-speed modelling operations for the Department of Energy. China, therefore, is likely just as well positioned as the US to continue to explore new nuclear weapon designs regardless of whether it ratifies the CTBT.

In February 2008, one year after having conducted a test of a direct-ascent anti-satellite (ASAT) weapon, China, in cooperation with Russia, submitted a draft treaty to the Conference on Disarmament proposing an international agreement on “The Prevention of the Placement of Weapons in Outer Space and the Threat or Use of Force against Outer Space Objects.” In its 2008 White Paper, Beijing stated, with enviable cheek, that the “Chinese government has all along advocated the peaceful use of outer space, and opposed the introduction of weapons and an arms

²⁸⁴ Lewis, *The Minimum Means of Reprisal*, 202.

²⁸⁵ Mutual deterrence was enshrined decades earlier when the USSR achieved a survivable second-strike capability. As for the ABM Treaty, its adoption as an icon by those who view NACD as an end in itself rather than as merely a means to an end flies in the face of several facts. First, the ABM Treaty prohibited nothing that was imminent or destabilizing. Neither state at the time had the resources or technological capability to devise a practical defence against the thousands of ballistic missiles (and, thanks to newly-deployed MIRV systems, tens of thousands of strategic warheads) possessed by each side. Second, the fact that the primitive state of targeting technology required interceptors to be armed with nuclear warheads (the US point-defence interceptor, *Sprint*, carried a low-yield W-66 enhanced radiation weapon, or ‘neutron bomb’; while its high-altitude interceptor, *Spartan*, carried a massive 5 Mt W-71 warhead) meant that successful intercepts would in practice be only slightly less damaging than the impacts that they were deployed to prevent. Anti-ballistic missile systems were restricted to a single deployment site by the Treaty not because they would have undermined deterrence, but because neither state wanted to expend the resources necessary to implement a plan that would not have worked.

²⁸⁶ Yuan, 2.

²⁸⁷ BBC News Technology, “China Claims Supercomputer Crown”, 28 October 2010. [http://www.bbc.co.uk/news/technology-11644252]. Accessed 7 march 2011.

race in outer space.” The rationale for the joint proposal, according to the 2008 White Paper, was the fact that “existing international legal instruments concerning outer space are not sufficient to effectively prevent the spread of weapon to outer space.”²⁸⁸ The draft document put forward by the two governments was a follow-on to the 2005 co-sponsorship by Beijing and Moscow of a UN Disarmament research conference on the same topic, the conclusion of which was criticism of the George W. Bush administration for “‘expanding and building upon’ plans designed to ensure American ‘space dominance’.”²⁸⁹

It is difficult to challenge Beijing’s argument that the extant prevention of an arms race in outer space (PAROS) regime is insufficient to prevent such a race, seeing as how China’s ASAT test – the first by any nation in more than two decades²⁹⁰ – conclusively proved that at least one state, China, has demonstrated both a keen interest in weaponizing space, and the ability to do so. Shooting down a satellite and then calling immediately for a ban on anti-satellite weapons amounts to advocating mandatory barn door locks immediately after having stolen the horse. China’s uncharacteristic reticence when the US used a SM-3 sea-launched missile to destroy one of its own malfunctioning satellites in February 2008 (rather than condemning the US test, which even China’s advocates would likely have deemed hypocritical, Beijing confined its response to a call for Washington to live up to its international obligations – “presumably the 1967 *Outer Space Treaty* and the 1972 *Liability Convention*”,²⁹¹ both of which China has joined²⁹² – and a request for data on the shoot-down²⁹³) suggests that the message intended by the reciprocal nature of the US operation was received.²⁹⁴ According to secret cables from the US Embassy in Beijing

²⁸⁸ *China’s National Defense in 2008*, 51.

²⁸⁹ D.A. Neill, *China Tests an ASAT*, (Ottawa: Defence R&D Canada, Directorate of Strategic Analysis Issue Brief IB 07-02, Unclassified, 17 January 2007), 7.

²⁹⁰ The last US test of an ASAT, the air-launched ASM-135, took place in 1985; while the last Soviet test, of a direct-ascent weapon based on the SS-9 MRBM, took place in 1982.

²⁹¹ Eric Hagt, “The U.S. satellite shoot-down: China’s Response”, *Bulletin of the Atomic Scientists*, 5 March 2008. [<http://www.thebulletin.org/web-edition/features/the-us-satellite-shootdown-chinas-response>]. Accessed 7 March 2011.

²⁹² See the website of the United Nations Office of Outer Space Affairs [<http://www.unoosa.org/oosatdb/showTreatySignatures.do>]. Accessed 7 March 2011.

²⁹³ Traci Watson, “China seeks data from downing of U.S. Satellite”, *USA Today*, 21 February 2008 [http://www.usatoday.com/news/washington/2008-02-19-satellite_N.htm]. Accessed 7 March 2011.

²⁹⁴ Washington described its shoot-down as necessary to prevent damage on the ground from the uncontrolled re-entry of a satellite that still contained half a ton of volatile manoeuvring fuel. While this has been described as a slim pretext, it was at least credible; Beijing offered no explanation whatsoever. Moreover, the US exercise produced no enduring orbital contamination, while the Chinese shoot-down produced more than 3,000 pieces of debris large enough to be tracked by NASA, most of which are likely to remain in orbit for decades, and more than 150,000 pieces larger than 1 cm, making it the largest debris-generating space event in history, and forcing NASA and Russia to move the International Space Station to avoid hazards. [<http://celestak.com/events/asat.asp>]. Accessed 7 March 2011. Amongst other things, the long-term debris threat to satellites and space travel posed by the Chinese shoot-down makes China’s subsequent comments about the “possibility of damage to the security of outer space” and the need for the US to respect its “international obligations” somewhat galling. Embassy of the People’s Republic of China in Croatia, “Foreign Ministry Spokesman Liu Jianchao’s Regular Press Conference on February 21, 2008”, 22 February 2008 [<http://hr.china-embassy.org/eng/fyrrh/t409230.htm>]. Accessed 7 March 2011.

released by WikiLeaks, the Chinese Foreign Ministry's key concern appeared to be receiving notice of the results of the interception operation before CNN.²⁹⁵

Not surprisingly, Lewis characterizes China's diplomatic PAROS initiatives as reactive, arguing that "China's substantive support for a legal undertaking on preventing an arms race in outer space is a response to the impending modernization of US strategic forces, including missile defence deployments."²⁹⁶ Advocating such an interpretation requires a tremendous suspension of disbelief. First, there was and is nothing in the BMD system proposed and signed into law by President Clinton (not President Bush) that included any aspect of technology presently covered by the comprehensive PAROS regime. Second, Lewis is once again presuming altruism on the part of China and mischief on the part of the US government; it violates causality to deem America's "impending" strategic force modernization the cause of China's own strategic force modernization process, which has been ongoing for more than a decade. Third, Lewis has somehow managed to completely divorce current events from any historical context – notably China's lengthy track record of treating international diplomacy and military modernization as two co-equal fronts in the same campaign, and using both to advance its strategic objectives. Fourth, he fails to recognize what Beijing seems to have understood from early in the post-Cold War period: that a state with limited means cannot directly challenge the economic, technological and industrial strengths of the US, and so must instead seek to outflank those strengths by unconventional means. Given China's half-century track record of saying one thing and doing something entirely different – at time of writing, China was blocking the progress of PAROS negotiations at the UN by opposing on-site verification, "making any agreement a trust-but-don't-verify accord"²⁹⁷ – it represents the acme of naïveté to interpret a preference for dilatory diplomacy as altruism rather than as what history suggests it really is: a means of mitigating the China-US strategic imbalance at minimal cost to Beijing.

Lewis' perspective also requires ignoring what China's own analysts are advising. A recent article in *China Security* was admirable in its clarity:

As China's participation in multi-lateral nuclear disarmament negotiations will unavoidably lead to a reduction and weakening of its strategic deterrent force, we should improve the base number of our nuclear force before participating in any nuclear disarmament negotiations. This can be achieved through the development of a necessary quantity and quality of nuclear weapons so that any concession in future disarmament negotiations will not lead China's strategic forces to fail to fulfill the promise of a retaliatory strike against enemies' nuclear attacks.²⁹⁸

²⁹⁵ The cable in question was published by *The Telegraph*. [<http://www.telegraph.co.uk/news/worldnews/wikileaks/8299495/WikiLeaks-US-and-China-in-military-standoff-over-space-missiles.html#>]. Accessed 7 March 2011.

²⁹⁶ Lewis, *The Minimum Means of Reprisal*, 202.

²⁹⁷ China is insisting on including under the definition of "space weapons" the US Space-Based Infrared Radar System (SBIRS), a crucial multi-billion-dollar component of its strategic alerting system. This is obviously a non-starter from Washington's perspective and, equally obviously, was incorporated by Beijing as a "poison pill" in the negotiations. Bill Gertz, "Arms Control Failures", *The Washington Times*, 3 March 2011. [<http://www.washingtontimes.com/news/2011/mar/2/inside-the-ring-712302675/?page=3#>]. Accessed 7 March 2011.

²⁹⁸ Wang Zhongchun, 63.

The logic, motivations, incentive structure of the East-West strategic relationship and degree of pragmatism represented by such advice are, if alarming, at least refreshingly transparent. This author – whose views, as the foregoing analysis has demonstrated, dovetail closely with the strategic perspective evinced by Beijing’s actions over the last half-century – sees nuclear weapons as leverage in a process the strategic impact of which will inevitably be injurious to China’s strategic interests. Despite more than four decades of separation, such advice is clearly the lineal descendent of Beijing’s 1964 statement upon first becoming a NWS, which defined nuclear weapons not only as “paper tigers”, but also – more rationally – in two opposing lights: first, as crucial to protect China against “ever increasing nuclear threats from the United States”; and second, as bargaining chips. The suggestion that China should “improve the base number of [its] nuclear force before participating in any nuclear disarmament negotiations” is hardly novel; this is, in fact, precisely what China has been doing for the past 47 years. Like any state, China logically prefers to negotiate from a position of strength.

In sum, what may at first glance appear to be internally inconsistent threads in the tapestry of China’s nuclear NACD policy – repeated staunch calls for non-proliferation, arms control and disarmament coupled with acutely provocative acts like the 2007 ASAT test and a long-term strategic force modernization process that is about to enter its third decade – are in fact entirely consistent with China’s long-standing policy of advancing its strategic interests simultaneously on different fronts, of which diplomacy is only one. Pursuing the same objective on different axes of advance looks illogical only if one considers each axis in isolation.

Taken altogether, China’s rhetoric and its activities represent the pursuit of a single strategic objective – enhancing China’s strategic power and influence – by parallel, complementary means. The dichotomy between what China says and what it does would only be a weakness if China intended its words to be consistent with its deeds. As the citation from Kissinger heading this chapter suggests, the meaning and purpose of declaratory policy (and the rhetoric with which it is often accompanied) must be understood in the context of the character of the government making the pronouncement. Analysts who look only at China’s statements in isolation from its actions in all areas are unlikely to recognize this – particularly if they insist on ascribing philanthropic motives to proclamations that, as history demonstrates, are intended solely to advance China’s strategic interests, and are rarely if ever backed up by deeds.

4.3 Missile Defences

On 11 January 2010, China conducted a live-fire test of a mid-course interceptor for an anti-ballistic missile (ABM) system. According to a secret cable from the US, the interceptor destroyed the target missile, a CSS-X-11 (modified DF-11), at an altitude of 250 km. A Chinese news service provided only a very terse report: “On 11 January, China conducted a test on ground-based midcourse missile interception technology within its own territory. The test has achieved the expected objective. The test is defensive in nature and is not targeted at any country.” It is worth noting that, according to the cable, the interceptor was based on the same rocket booster as that which lofted the kill vehicle for the successful 2007 ASAT test.²⁹⁹

²⁹⁹ The cable in question was published by *The Telegraph*. [<http://www.telegraph.co.uk/news/worldnews/wikileaks/8299495/WikiLeaks-US-and-China-in-military-standoff-over-space-missiles.html#>]. Accessed 7 March 2011.

China's actions in conducting this test do not square with its long-standing and highly vocal opposition to Washington's BMD programme. In its 2008 White Paper, for example, Beijing stated bluntly that "the global missile defense program will be detrimental to strategic balance and stability, undermine international and regional security, and have a negative impact on the process of nuclear disarmament." China, the White Paper promised, "pays close attention to this issue."³⁰⁰ In 2005, Moscow and Beijing joined forces in the UN Conference on Disarmament to breathe new life into the moribund PAROS process that had been discontinued in 1994, with the US National Missile Defence (NMD) programme as the key focus of their joint efforts. This reflects long-standing policy on Beijing's part; China's government stood strongly opposed to Reagan's Strategic Defence Initiative (SDI), worrying that it "threatened to open the door to developments that could fatally undermine China's nuclear retaliatory capability", while no less an authority than Deng himself stated in 1985 that China "openly oppose[d] any plan leading to a space arms race."³⁰¹

Such concerns reflect Beijing's traditional policy of paying scant heed to international developments that do not directly impact China's interests, but taking seriously developments that do. China ignored the US-Russian SORT as having no real impact on the strategic balance (even after the mandated force reductions, both Russia and the US would retain immensely superior strategic forces), and greeted successive iterations of the US Nuclear Policy Reviews with varying degrees of pro-forma indignation. By contrast, Clinton's signature of the *1999 Missile Defense Act*,³⁰² the US withdrawal from the ABM Treaty in 2002,³⁰³ and Bush's announcement of the BMD deployment decision later that year,³⁰⁴ all met with genuine concern.

China's strategic capabilities have always loomed large in US ballistic missile defence plans and decisions. The *Safeguard* system proposed and designed during the 1960s and based on the *Spartan/Sprint* interceptor combination would not have been effective against a massed Soviet ICBM attack; but had it been deployed to protect major population centres likely to be targeted by China, it would have offered at least some defence against the small numbers of primitive ICBMs that comprised the totality of China's strategic deterrent until the arrival of the DF-31 in 2007. The same philosophy guided the scaled-down mandate of the successors to Reagan's Strategic Defence Initiative Office. While the BMD deployment decisions have generally been explained

³⁰⁰ *China's National Defense in 2008*, 52.

³⁰¹ John W. Garver, "China's Response to the Strategic Defense Initiative", *Asian Survey*, Vol. 26, No. 11 (November 1986), 1220-21 and 1231.

³⁰² China's Ambassador to the UN Conference on Disarmament, Li Chenghe stated that US NMD plans would turn outer space "into a new battlefield and a base for weapon systems". Rebecca Johnston, "Frustration that the CD Isn't Working", *Disarmament Diplomacy*, Issue #34, February 1999. [<http://www.acronym.org.uk/dd/dd34/34genev.htm>]. Accessed 7 March 2011.

³⁰³ China had been briefed well in advance of the withdrawal decision, and its reaction to the official announcement was consequently muted; the Foreign Ministry's response was limited to a statement that China's position on the ABM Treaty "has always been consistent and clear", and that Beijing hoped that Washington would "seriously consider the opinions of the majority of nations on the ABM Treaty." Wade Boese, "Bush Announces U.S. Intent to Withdraw from ABM Treaty", *Arms Control Association*, January-February 2002. [<http://www.armscontrol.org/print/967>]. Accessed 7 March 2011.

³⁰⁴ China's official response to the Bush Administration's announcement of plans to deploy a limited BMD system by 2004: "China does not approve of the development and deployment of missile defense systems that will disrupt global strategic balance and stability." Willy Wo-Lap Lam, "China Hits Out At U.S. Missile Plans", CNN.com, 18 December 2002 [http://articles.cnn.com/2002-12-18/world/china.sha_1_missile-defence-nmd-ballistic-missiles?_s=PM:asiapcf]. Accessed 7 March 2011.

on the basis of preparing to defend against rogue states and accidental launches, the capabilities of any such system (and any sensor/interceptor deployment axis optimized to protect the US against launches from rogue states like the DPRK or Iran) would make it effective against ICBMs launched from the Chinese mainland as well. The Director of the US Missile Defence Agency (MDA) acknowledged as much when in 2007 he admitted that his mandate contemplated countering China's ballistic missile capability because, in his words, "that's prudent."³⁰⁵ Such transparency no doubt raised eyebrows and hackles in Beijing.

It goes without saying that Washington makes strategic planning and deployment decisions on the basis of US defence and security interests. Inverting this order of priorities begs the question, as one analyst put it, of how the US can "prudently design its missile defence system in a manner that avoids alarming Beijing?"³⁰⁶ It is not clear that this is even possible; the mechanics of ballistic missile interception are governed by physical laws that cannot be 'massaged' in order to assuage political sensitivities. However, it is certainly possible to attempt to view the missile defence equation from Beijing's perspective, and the author that posed the question posits five key concerns on China's part about the existence, capabilities, extent and future shape of the US BMD system. These concerns are, first, that missile defence undermines the value of China's strategic deterrent; second, that the US may transfer theatre missile defence technology to Taiwan; third, that the US may do the same for Japan; fourth, that BMD may have "adverse effects" on the international NACD agenda; and fifth, that BMD will increase Washington's *marge de manoeuvre* in time of crisis, encouraging more 'unilateralism'.³⁰⁷

Of these postulated concerns, only the first is credible. Washington has not transferred its GBI technology to either Taiwan or Japan – although it is not at all unlikely that further Chinese strategic force modernization coupled with the growing capability of the PLA to deny US forces access to China's maritime area of influence could increase the Taiwanese and Japanese threat perceptions to the point where Tokyo and Taipei might press for such technology transfers. The concern about 'unilateralism' is a canard; Washington is the only capital in recent memory to actually seek international authorization prior to launching any sort of military campaign. And it represents the height of chutzpah for Beijing to suggest that Washington's BMD program could "adversely impact" the nuclear NACD agenda when China has provided nuclear and ballistic missile assistance to dangerous state actors like Iran and Pakistan, conducted an unprovoked and highly contaminating ASAT test, and is the only state presently expanding its nuclear arsenal.

This is not to say that concerns about the potential deleterious effect of the US BMD system on China's strategic deterrent are invalid. While in its present limited state the system could not defeat a massed Chinese ICBM strike against the continental US, a surprise attack is not the most likely scenario. It is more likely that an escalating crisis leading to nuclear threats by Beijing would prompt Washington to attempt to eliminate as many of China's strategic weapons as could be found. If many or most of China's ICBMs could be destroyed on the ground, those that remained could be engaged by sea- and ground-based interceptors, limiting the number of warheads that could reach the continental US. Such a conventional counterforce scenario likely

³⁰⁵ Toshi Yoshihara, "US Ballistic Missile Defences and China's Undersea Nuclear Deterrent", in Andrew S. Erickson et al., eds., *China's Future Nuclear Submarine Force* (Annapolis, Md.: Naval Institute Press, 2007), 330.

³⁰⁶ *Ibid.*, 331.

³⁰⁷ *Ibid.*, 332-333.

lies at the heart of recent pronouncements by Chinese officials that a disarming conventional attack would be deemed sufficient cause to generate a nuclear response. The existence of a US missile defence system, therefore, should logically reduce China's incentive to rattle its nuclear sabre in time of crisis. No less an authority than Dyson has argued that ballistic missile defences reduce the crisis instability of strategic doctrines based on counterforce or limited nuclear options.³⁰⁸ Beijing, not surprisingly, disagrees with this assessment.

The US 'unilateralism' argument, while not supportable on its face,³⁰⁹ is perhaps less disingenuous when one considers that US 'unilateralism' is often understood to be code for US support to Taiwan. Some Chinese analysts have opined that the effective neutralization of China's deterrent capability would cause Washington to be "less cautious about drifting into a Taiwan Strait crisis."³¹⁰ Such language says more about the political predilections of the authors than about any rational concern. Washington, after all, is highly unlikely to "drift" into a potential confrontation with a nuclear-armed adversary; such a thing has yet to happen in the nuclear era. Moreover, it hardly constitutes drifting when defence and security support to Taiwan is mandated by legislation (e.g., the 1979 *Taiwan Relations Act*) and by Congressional resolutions reaffirming the principles of that legislation.³¹¹ In any case, Beijing's argument that BMD is destabilizing because it threatens to dilute China's ability to use its nuclear weapons to influence the policy of its regional neighbours may be ill-advised, as it simply reinforces the position taken by the more staunch and vocal proponents both of strategic missile defences in particular, and of the 'China threat' in general. And in view of China's ongoing work on its own missile defence programme, such objections provide a further demonstration that, insofar as Beijing is concerned, it is not at all inconsistent for declaratory policy to evolve without any necessary link or even any relation to the development and deployment of strategic weapons systems.

³⁰⁸ Freeman Dyson, *Weapons and Hope* (New York: Harper and Row, 1984), 254-55.

³⁰⁹ The historical record of the past several decades demonstrates that the US is unique in having sought international authorization and support for every military venture it has launched since the fall of the Berlin Wall. No other nation can make that claim.

³¹⁰ Tian Jingmei, "The Bush Administration's Nuclear Strategy and Its Implications for China's Security", Institute of Applied Physics and Computational Mathematics, Beijing, March 2003, 15. [<http://iis-db.stanford.edu/pubs/20188/tian.pdf>]. Accessed 10 November 2010.

³¹¹ Although US intervention of some sort would be likely under present circumstance, it bears recalling that under the *Taiwan Relations Act*, the United States is not obligated to undertake any action in the event of Chinese aggression. The Act states simply that the United States would "consider any effort to determine the future of Taiwan by other than peaceful means, including by boycotts or embargoes, a threat to the peace and security of the Western Pacific area and of grave concern to the United States". *Taiwan Relations Act*, Public Law 96-8 96th Congress (January 1, 1979), Section 2, b. (4). Consequently, there is no automatic guarantee that the US would act in any future exigency as it did in March 1996.

5 Beyond minimal deterrence

The third chapter of this paper examined in detail the evolution of China's complicated relationship with the concept of deterrence. As has already been noted, the most common analytical assessment of China's approach to nuclear strategy is that it is based on a concept of minimal deterrence under which China deliberately maintains only that level of strategic nuclear forces necessary to ensure a survivable retaliatory strike capacity that is capable of inflicting unacceptable damage on a potential aggressor regardless of any pre-emptive or defensive measure that adversary may take. Other analysts argue that China either follows or aspires to a limited deterrence doctrine, the principle characteristics of which are the infrastructure and weapons systems necessary to execute a sequential nuclear exchange – in other words, limited nuclear war-fighting. A third concept explored in this paper is the possibility that Beijing maintains a composite nuclear strategy consisting of both political and military elements, in which the former are grounded in a minimal deterrent strategy, but the latter, in order to maintain the credibility of the deterrent force, are grounded in military preparations to fight a limited nuclear war.

The fourth chapter expanded upon the composite nuclear strategy concept by examining three key elements of China's declaratory policy comprising important aspects of its multi-axis compendium of nuclear policy. While Beijing describes its NFU policy, its position on the international nuclear NACD regime and its opposition to missile defences in terms of moral imperatives and a quest for peace and security, its actions in each of these areas suggest that its policy is merely intended to temporarily offset the advantages, technological and otherwise, enjoyed by its adversaries until such a time as China is able to catch up or other neutralize those advantages (e.g., through asymmetric means). The political axis of Beijing's composite nuclear strategy, therefore, while seemingly disconnected from the reality of Beijing's strategic force development, deployment, doctrine, training and modernization activities, in fact appears to serve a broader political purpose by putting a benign face on the slow but steady transformation of China's strategic capability.

Opacity and lack of data necessitate speculation. Absent the disclosure of official documents providing a comprehensive and accurate depiction of the internal processes of key CPC decision-making bodies, those processes, and the substance of the debates that take place within them, are likely to remain obscure. What does seem clear is that China's approach to nuclear weapons, nuclear strategy, declaratory nuclear policy and nuclear doctrine all appear to be changing. New weapons systems, including new asymmetric capabilities, are being developed, introduced to military service, and deployed. The complexity and tempo of operational training for nuclear forces is being increased. Nuclear strategy is being increasingly discussed in scholarly as well as military circles. China has begun publicizing tests of strategic weapon systems. It is widely assumed that the purpose of these changes is to underwrite China's long-term strategic goals of diluting US power and influence in the Western Pacific; denying the US the ability to conduct military operations in China's area of interest; and cementing China's place as the dominant power in Asia. China presumably crafts its nuclear posture to support its broader political strategy. This chapter will examine the contention, frequently cited in the open literature, that China's nuclear posture is – whether deliberately or as a consequence of ongoing force structure and doctrinal changes – evolving away from minimal deterrence, and towards something else.

In the second chapter of this paper, we examined the proposition that China's modern military strategic thought has its roots in ancient philosophical and military treatises. The scholars that produced these treatises were, by and large, vocal advocates of limited warfare. Sun Tzu was a strong proponent of limited conflict, and the concept dovetails comfortably with the military experience of the Warring States period and the wars fought by successive dynasties. With the exception of the Mongol invasions of the 13th Century that ended the Jin and Song Dynasties and established the Yuan Dynasty under Khubilai Khan, the bulk of China's military history has been one of what might be considered relatively limited wars conducted for relatively limited aims. There is, for example, no Chinese parallel to Alexander, expansionist Rome, Imperial Britain, Napoleonic France, Nazi Germany, or America's modern global economic and military empire. For nearly all of its history prior to the so-called Century of Humiliation (*bainian guochi*, 1839-1949), China never had to exert more than a small fraction of its strength to achieve its military objectives.³¹² And again, with the exception of the Mongol period, most of those objectives were concerned with creating and maintaining national unity, stabilizing unruly territories, and securing China's near periphery. With some obvious (but in an historical sense, relatively minor) exceptions, China has no significant history of seeking widespread, much less global, hegemony or conquest.

As has already been noted, Hanson argues that limited war lies at the heart of Asian military philosophy. Deception, delay, non-decisive engagements and the like are far more likely to be found in the Persian, Indian and Chinese military traditions than those of the Greeks and their Roman successors. It took the Western world, drawing first on Greek hoplite phalanges and later on Roman legionary combat, to develop the concept of a decisive, destructive clash of arms.³¹³ According to Hanson's interpretation, the military traditions deriving from these ancient examples have echoed down through the ages, resulting in vastly differing strategic cultures and, as a result, different modern military practices. It took Western nations (or, as in the case of the USSR in the Second World War, a half-Eastern nation with a largely Western-inspired cultural tradition, and allied with the West) to issue demands for unconditional surrender. Western nations dominated the world in the 19th and 20th Centuries; devised wars of annihilation; used poison gas on a theatre scale; invented saturation and fire-bombing of population centres; conceived and enacted the hideous notion of industrialized genocide; and developed and used the atomic bomb. Hanson suggests that total war is also linked to the citizen-soldier tradition that originated in classical Greece and was adopted by the Roman republic; willing soldiers, he argues, are more likely to press home an attack than hapless conscripts pressed into serve by the tyrant of the day. Total war, in short, is an innovation of the aggregated historical experience of Western strategic culture; limited war, according to Hanson, would come far more naturally to China than to any of its potential Western adversaries.

As Chapter 2 suggested, China's vastly different history and strategic culture may be the source of some of the cognitive dissonance on display when Beijing deployed its first generation of strategic weapons. People's War was paramount; men were more important than materiel; and yet China's early deployments were of low numbers of relatively inaccurate, liquid-fuelled missiles aimed at cities and armed with multi-megaton thermonuclear warheads. For safety reasons the missiles had to remain unfuelled until hours before launch; and for security reasons, the warheads

³¹² Rajain, 107.

³¹³ See Victor Davis Hanson, *The Western Way of War: Infantry Battle in Classical Greece* (Oxford, UK: Oxford University Press, 1990).

were stored separately from the missiles, and had to be transported to the launch sites and fixed to the missiles prior to firing. These were not the weapons of limited warfare. They offered no possibility of finesse, of the fine calculations and careful judgements demanded by Sun Tzu. They could not effect a pre-emptive strike – certainly not against a vastly more capable adversary like the USSR or the US (and because there was no possibility of pre-emption, there was no political or operational cost to, and thus nothing particularly laudable in, implementing a NFU policy).

China's first generation of nuclear thinkers gradually came to grips with the fact that a minimal deterrent policy combined with primitive nuclear and missile technology necessitates a 'city-bashing' posture. One strategist in the 1980s pointed out that it was "unnecessary...to achieve tremendous accuracy. If a nuclear war breaks out between China and the Soviet Union, I do not think there is too much difference between the results, provided China's ICBM misses its predetermined target, the Kremlin, and instead hits the Bolshoi Theatre."³¹⁴ Interestingly, this did not prevent planners from assigning operational tasks even to weapons bearing high-yield warheads; China's missiles have always had an operational role, especially in targeting US facilities throughout the Western Pacific. Their principal role, though, has always been strategic. During the 1969 Sino-Soviet conflict, for example, DF-4 units were moved to Qinghai to threaten Soviet targets – cities, most likely – with their multi-megaton warheads.³¹⁵ City-bashing, incidentally, is not limited warfare.

The principal conundrum facing nuclear theorists in an 'underdog' NWS is the inexorable calculus of deterrence. The credibility of any deterrent force rests on both the capability of that force vis-à-vis a potential adversary, and the political will of the government. Political will can be difficult to generate, but the problem is mitigated if one is in a position of extreme superiority. The credibility of a minimal deterrent, in stark contrast, depends on the willingness of a government to threaten and execute a retaliatory counter-value strike against a far better-armed opponent, in the full knowledge that doing so will invite a potentially devastating response. In China's case, in the event of a strategic conflict with the US, it is unlikely that Washington would be able to destroy all of China's ICBMs before they could be launched, or intercept all of the warheads carried by those that were launched. This is the basis of China's deterrent concept at present. But is it realistic? Would China actually launch a thermonuclear warhead at a US city (or, in some spasmodic *götterdämmerung*, against the population centres of Washington's Asian allies), knowing that America could obliterate every Chinese population centre of significance in less than an hour? Is Beijing banking on Washington's willingness (and for that matter, its ability) to demonstrate restraint after suffering the loss of, for example, Los Angeles, and the deaths of millions of its citizens? Is China's deterrent policy based on a presumption of American self-control and – for lack of a better word – humanity?

Minimal deterrence, simply put, is inherently unstable because it is rational only if the underdog in the deterrent relationship understands and accepts that a single retaliatory strike would constitute national suicide, and that every strategic crisis must therefore inevitably end in being forced to back down. In order to increase the stability of the relationship, the underdog must be able to engage in escalation, targeting less valuable assets with smaller warheads while retaining the ability to conduct more devastating strikes if provocations continue. This requires progressing beyond minimal deterrence to a limited deterrence posture based on some small degree of nuclear

³¹⁴ Zhang Aiping, cited in Lewis and Xue, 552.

³¹⁵ *ibid.*, 551.

war-fighting capability – the capacity, as Godwin puts it, “to respond to any level of nuclear attack from tactical to strategic.”³¹⁶

Limited nuclear war as a strategy may be less unstable than minimal deterrence but it remains a more problematic concept in practice. Soviet doctrine on minimum deterrence, for example, acknowledged the postulate that limited nuclear war was possible in theory; but there was no agreement among theorists, either Eastern or Western, that a nuclear war involving ‘limited’ strikes could be kept limited.³¹⁷ Theoretical challenges notwithstanding, there is some evidence that PLA doctrine has in recent years been developing more rapidly in this area than Beijing’s declaratory policy. According to Wortzel’s interpretation of the PLA *Guide to the Study of Campaign Theory*, for example, planners selecting targets for strategic nuclear strikes should consider:

“Enemy political and economic centers, especially important urban areas, with a goal of creating great shock in the enemy population’s spirit and destroying their will to wage war;

“[...] the critical infrastructure of the enemy to weaken the enemy’s capacity for war (examples for targets are petroleum refining, storage and shipping links; electric power generation and transmission lines; and major heavy industry);

“Enemy transportation networks;

“Major military targets such as air force and navy staging areas and bases to degrade the ability of these services to wage war; and,

“Major deployed military forces.”³¹⁸

This sort of targeting doctrine goes much, much further than what would be necessary to support a minimal deterrent strategy. The first consideration alone would be sufficient for a strategic force capable only of ensuring that a few high-yield warheads will arrive at an enemy’s cities. This list is more appropriate to a military that is planning not only on conducting a protracted nuclear war, but also on emerging victorious from it, and using its outcome to positively impact conventional military operations, presumably in related theatres. Moreover, from a perspective of escalation, the list is inverted. A limited war scenario generally assumes that escalation to nuclear use evolves from some sort of conventional crisis. A Taiwan scenario, for example, might see China use nuclear weapons first against major deployed US formations (e.g., carrier battle groups steaming towards the Strait) and air and naval staging areas in Japan, Korea, Guam and elsewhere in the region. Nuclear strikes against Hawaii or targets in the continental US, by contrast, would probably only be considered as a last resort; while an attack against a US population centre would – in view, as noted above, of the likely consequences – not under any circumstances be a rational act.

Taken in combination with China’s strategic force modernization program, this sort of guidance suggests that Beijing is developing both the capacity to generate more nuclear options than it

³¹⁶ Paul Godwin, cited in Rajain, 125.

³¹⁷ Freedman, 249.

³¹⁸ Wortzel, 18.

presently enjoys, and the strategic doctrine to make use of them, further supporting the argument that China is deliberately effecting “a change from war-deterring capability to war-fighting capability.”³¹⁹ Nor is this an isolated development. In recent years, discussions of nuclear strategy and the content of doctrinal publications have begun to draw an increasingly stark difference between large-scale retaliatory strikes and “small-scale nuclear counterattack campaigns” tailored to political and operational circumstances.³²⁰ The thought process underlying these developments has been going on for some time; according to Sun Xiangli,

...some articles from the 1980s showed that China’s military strategy scientists advocated China’s development from a ‘minimum nuclear deterrence’ to a ‘limited nuclear deterrence,’ which would give China the limited capability of attacking military targets, thus concluding that China could change the nature of its nuclear strategy when economic and political conditions permitted.³²¹

The evolution of China’s nuclear strategic thought has clearly been under way for some time. Doctrinal evolution and the force modernization process necessary to support evolving doctrine are more recent phenomena. Articles in doctrinal publications over the past few years have begun to advocate a break with Mao, calling for “an aspirational doctrine of limited deterrence (*youxian weiche*) comprised of counterforce, warfighting capabilities to deter conventional, theatre and strategic nuclear war, and to control and suppress escalation during a nuclear war.”³²² Only China’s declaratory policy remains in the doldrums. Declaratory policy, however, as has already been noted, serves its most important purpose in putting a peaceful face on less-than-peaceful activities; and it is always the easiest and fastest part of the nuclear equation to change if circumstances warrant.

The evolution of China’s strategic force posture and strategic doctrine appears therefore to be more consistent with the temporary US fascination with limited deterrence and flexible response than it is with either minimal deterrence or, at the other end of the deterrence spectrum, mutual assured destruction. Limited, flexible nuclear options are not at all incompatible with China’s strategic culture. While minimal deterrence might suit an insular state concerned with protecting domestic industrialization and development against outside interference, it does not necessarily suit a confident state intent on expanding its influence. China’s evolving strategy is in this context a consequence of its evolving, self-appointed role in Asia; and such evolution is not only consistent with the philosophical roots of China’s strategy, but is in fact advocated by it; no less an authority than Sun Tzu, after all, opined that while “Security against defeat implies defensive tactics...defeat[ing] the enemy means taking the offensive.”³²³

In this context, it is worth noting that Beijing’s articulation of ‘defence’ includes “anticipatory attack”, which is defined as a “defensive strategy carried out by offensive means,”³²⁴ a principle that dovetails closely with that of ‘active defence’ described in the 2008 White Paper. According

³¹⁹ Rajain, 141.

³²⁰ Chase, Erickson and Yeaw, 94-95.

³²¹ Sun Xiangli, 1.

³²² Schneider, 248.

³²³ Sun Tzu, *The Art of War*, Chapter 4.

³²⁴ Stephen J. Cimbala, “Anticipatory Attacks: Nuclear Crisis Stability in Future Asia”, *Comparative Strategy*, Vol. 27 (2008), 113.

to Cimbala, a number of potential irritants might provoke an anticipatory attack. Candidate actions include, but are of course not necessarily limited to:

- the expectation that an attack is inevitable (if not necessarily imminent);
- the expectation that an attack is both inevitable and imminent;
- the perception that a ‘window of opportunity’ exists to disarm or seriously disadvantage a potential attacker;
- the government places high value on strategic surprise; and/or
- the belief that one’s offensive technology confers a marked advantage over defensive technology.³²⁵

Some of these categories correspond to existing definitions. An anticipatory attack launched in the expectation that an attack is both inevitable and imminent, for example, is generally referred to as a ‘pre-emptive attack’. An anticipatory attack launched in the expectation that an attack is inevitable but not necessarily imminent, by contrast, is usually referred to as a ‘preventive attack’. Preventive wars tend to be motivated by the concern that operational conditions or the objective balance of forces will be less advantageous in the future, and as such tend to be highly controversial. Recent examples of preventive war include the 2003 US-led invasion of Iraq, and the 1981 Israeli bombing of Iraq’s Osirak nuclear reactor. An older example would be the Japanese attack against Pearl Harbour.

Some of these categories potentially apply to China’s strategic situation, particularly with regard to long-standing flashpoints like Taiwan. Chinese strategic culture, as already noted, traditionally places enormous value on strategic surprise; Sun Tzu devoted whole chapters of his small tome to this principle. Beijing might consider using force – possibly even nuclear force, although theatre or tactical use would be far more likely than a strategic strike – in order to pre-empt or prevent US intervention in the event of a unilateral declaration of independence by Taipei. Exploitation of a perceived strategic ‘window of opportunity’ is less likely to result in a strategic-level exchange, although at the theatre level this would be China’s preferred modus operandi. For example, if the US were to become heavily engaged in a naval or littoral operation elsewhere in the world that resulted in a drop in available naval and air forces in the Western Pacific, China might conceivably perceive an opportunity to accomplish the reintegration of Taiwan by force before US intervention was possible. Finally, much of China’s ongoing military R&D and its force modernization process – for example anti-satellite weapons, anti-ship ballistic missiles, digital warfare and other examples of ‘informationization’ – appears to be aimed at developing asymmetric technologies intended to obviate the US advantage in key strategic areas. Once these developments reach operational capability, Beijing could perceive a strategic technological advantage that will only be degraded as the US develops countermeasures. A perceived lead, however temporary, could be sufficient incentive to motivate Beijing to act before that advantage can be diluted or negated.

³²⁵ *Ibid.*, 114.

At present China's strategic retaliatory capability vis-à-vis the US – in terms of doctrine, capability, and (therefore) objective strategic reality – is vested in the ICBM fleets operated by Second Artillery. According to the 2008 White Paper, Second Artillery maintains China's deterrent by being prepared to respond to nuclear threats, and by executing nuclear strikes in response to a nuclear attack:

...if China comes under nuclear threat, the nuclear missile force of the Second Artillery Force will go into a state of alert, and get ready for a nuclear counterattack to deter the enemy from using nuclear weapons against China. If China comes under a nuclear attack, the nuclear missile force of the Second Artillery Force will use nuclear missiles to launch a resolute counterattack against the enemy either independently or together with the nuclear forces of other services.³²⁶

As a statement of China's declaratory policy, this seems clear – but it is still only declaratory policy, and thus, as already noted, is both designed for foreign (and to a lesser extent domestic) consumption, and is subject to change without notice. As the foregoing analysis demonstrates, taken altogether, China's deployment patterns, its force modernization programmes, its published doctrine, its quest for capabilities designed to offset US technological advantages, and even its enhanced training regime suggest that Beijing's nuclear capability is trending towards more than a simple, survivable deterrent force. And despite China's long-standing NFU policy, it is still not entirely clear whether the Second Artillery would be required to respond to first-use by another state, or whether it could, as one author put it in the early 1980s, "take the initiative of an ultimate warning shot."³²⁷ As strategy is best defined as what lies at the intersection of what the state hopes to achieve and what it can achieve, widening the scope of its military capabilities will inevitably enable Beijing to craft and adopt a more expansive and sophisticated nuclear strategy.

The first paper in this study noted that survivability can be elusive where land-based missiles are concerned, and that both the US and, to a lesser extent, the USSR ensure the survivability of a significant portion of their respective deterrent forces in fleet ballistic missile submarines. France has also done so, while the whole of the UK nuclear deterrent force is sea-based. China, by contrast, has not gone very far in this direction. According to the 2008 White Paper, the PLAN submarine force will have "some nuclear counterattack capabilities,"³²⁸ while the 2010 White Paper plans to enhance the capacity of the PLAN for "strategic deterrence and counterattack."³²⁹ Such aspirations overstate the reality of China's submarine situation. The single JL-1 equipped *Xia* SSBN cannot threaten targets in the continental US without deploying east of Hawaii, and may never have completed a deterrence patrol. The new *Jin* SSBNs have not yet reached operational status, largely because their JL-2 SLBMs have not been successfully tested. As some naval analysts have noted, a solid investment in increased SSBN/SLBM capability would reinforce China's deterrent,³³⁰ but Beijing continues to put its resources elsewhere. Once again, this represents a rational response to objective strategic reality; Beijing cannot at present hope to challenge US domination of the high seas, and as such could not guarantee the safety of SSBNs

³²⁶ *China's National Defense in 2008*, 22.

³²⁷ Georges Tan Eng Bok, "Strategic Doctrine", in Gerald Segal and William Tow, eds., *Chinese Defense Policy* (Chicago: University of Illinois Press, 1984), 12.

³²⁸ *China's National Defense in 2008*, 22.

³²⁹ *China's National Defense in 2010*, section II.

³³⁰ Yoshihara and Holmes, 31.

outside of Chinese coastal waters. Countering the US ability to operate within China's area of interest and influence therefore takes strategic priority over putting limited resources into further developing an area of strategic capability in which China, for the time being at least, is a long way behind.

If further investments in survivable submarine forces are not immediately forthcoming, then what of new nuclear operational capabilities? The first paper in this study tracked the evolution of US nuclear doctrine through early flirtations with counterforce targeting under McNamara, to the embrace of limited nuclear options and nuclear war-fighting doctrine in the 1970s and 1980s. China, at present, is not in a position to adopt counterforce targeting policies vis-à-vis the US or Russia (although Beijing might adopt a limited counterforce policy with respect to India). The US at present has too great an advantage in numbers and capabilities of strategic weapons systems, as well as in the surveillance systems and sensors necessary to locate and engage strategic targets. "Given the accuracy of the U.S. military's current delivery systems," one pair of analysts recently noted, "the only question is target identification: silos that can be found can be destroyed."³³¹ The same authors, it is worth noting, modelled the impact of a US disarming counterforce strike against China's strategic forces, and determined that low-yield, high-accuracy air-bursts against 20 hardened Chinese ICBM silos would be likely to result in approximately 700 immediate fatalities, as compared to the three to four million casualties that would likely result if high-yield ground-bursts were employed. The former figure, they note somewhat laconically, is "comparable to the number of civilians reportedly killed since 2006 in Pakistan by U.S. drone strikes."³³²

Is Beijing considering counterforce as a strategy? Shambaugh argues that China has diversified its targeting doctrine to include "both countervalue and counterforce targets,"³³³ and the foregoing citation from PLA strategic doctrine suggests this to be the case. That said, moving from a survival/retaliation posture to a pre-emptive counterforce posture³³⁴ requires capabilities that are an order of magnitude more complex. Counterforce targeting requires the ability to locate and identify strategic forces, many of which – for example, ICBM silos – are small, may be hardened and/or camouflaged, and may be interspersed with decoy sites. It requires a combination of accuracy and yield capable of destroying such targets – and it is not clear that China's long-range missiles possess the necessary accuracy and yield (the quantitative counterforce capacity of China's strategic forces will be evaluated in a later paper in this study). It requires surveillance and sensor systems capable of post-strike damage assessment to ensure that follow-up strikes are properly directed. It requires high-readiness forces capable of launching on little to no notice, without having to conduct pre-launch preparations that could alert an enemy to one's intentions. And perhaps most importantly, it requires a quantitative strategic advantage in order to achieve the necessary statistical likelihood of destroying a significant proportion of an enemy's strategic forces while still retaining forces sufficient to deter the enemy from retaliatory counter-value attacks.

At present, where its strategic relationship with the US is concerned, China possesses none of these capabilities. Beijing lacks the surveillance and targeting satellites necessary to locate and

³³¹ Leiber and Press, 46.

³³² *Ibid.*, 47.

³³³ Schneider, 251.

³³⁴ Counterforce is by its very nature pre-emptive. Unless one is able to strike before the enemy can launch, one finds one's-self destroying "empty holes."

identify strategic targets in the US, although given China's satellite technology and the state of its space launch programme, this lack could be overcome without a great deal of difficulty. More problematic is the fact that China's strategic forces are numerically two orders of magnitude behind the numbers of weapons available to the US, and although its missiles carry high-yield warheads, their accuracy may not be sufficient to enable them to threaten hardened targets like ICBM silos. And while Beijing is working to increase force readiness, its ICBM forces do not have the capability to execute short-notice operations. According to Wortzel, the Second Artillery force maintains three classes of readiness:

- Third Class (routine training, exercise and maintenance regime);
- Second Class (move/deploy to firing positions); and
- First Class (deployed with support elements, warheads and fuel, ready to fire).³³⁵

The transition between these classes of readiness involves activities easily visible to US satellite surveillance, and thus it is unlikely that China could generate nuclear forces for a surprise attack without alerting observers to Beijing's intent. The single greatest obstacles to short-notice nuclear operations are the safety and security strictures imposed on China's strategic forces. China's cultural predilection for surprise notwithstanding, the capability of China's nuclear forces and the nature of its doctrine suggest that nuclear war is unlikely to occur "by means of a surprise attack 'out of the blue' absent prior political confrontation."³³⁶ US intelligence officials charged with evaluating the likelihood of an unauthorized or accidental Chinese launch have assessed such an event as unlikely because "China keeps its missiles un-fuelled and without warheads mated."³³⁷ While the fuelling consideration does not apply to solid-fuelled missiles like the DF-31/31A, the security protocols that require moving warheads to launch sites under positive control and a high degree of security,³³⁸ and then mating them to missiles prior to launch, preclude adoption of a counterforce posture vis-à-vis any more capable NWS. That said, China could certainly adopt a counterforce posture with respect to a *less* capable NWS – e.g., India – although whether Beijing could effect preparations for a counterforce strike against targets in India without attracting US attention and/or pre-emption is an open question. A DF-4 being prepared for launch against a target in India is difficult to distinguish from a DF-4 being prepared for launch against a target in Korea, Japan, or Guam.

In short, a counterforce capability, at least as the concept is understood from the Western context and experience, does not appear to be China's strategic objective. Counterforce doctrines are a rational option only for states that have a reasonable chance of executing a disarming first strike.³³⁹ At present, there is no NWS that China could hope to disarm without risking devastating

³³⁵ Wortzel, 20.

³³⁶ Cimbala, "Nuclear Arms in Asia", 138.

³³⁷ Hans Born, "National Governance of Nuclear Weapons: Opportunities and Constraints", Policy Paper No. 15 (Geneva: Geneva Centre for the Democratic Control of Armed Forces (DCAF), 2007), 7. It is to be noted that this assessment is dated 1998; the growing prevalence of solid-fuelled ballistic missiles, which by definition cannot be unfuelled, in China's inventory, eliminates one of the sureties, Born cites. [?]

³³⁸ China reportedly only began using US-style permissive action links (PALs) on its nuclear weapons after the near-uprising at Tiananmen Square in 1989. Born, 7. Note that the source of this assertion is a 1995 Washington Post article.

³³⁹ Dyson, 250.

retaliation. Moreover, a pre-emptive counterforce strike is only a rational option as a damage-reduction measure in a crisis where one anticipates a massive counter-value strike. China's strategic forces – its declaratory policy and doctrine notwithstanding – possess neither the numbers nor the quantitative capacity to offer any reasonable prospect of limiting damage in the (extremely unlikely) event that the US, or for that matter Russia, ever decides to launch against China. Of course, any deliberate attempt on China's part to raise the readiness levels of its strategic forces; to improve their responsiveness and accuracy; to reload its more accurate missiles with higher numbers of lower-yield warheads; or to keep warheads mated to missiles as part of normal operational routine, would enhance China's counterforce capability, and would therefore be a matter of concern both for regional actors and the US.

Adoption of a counterforce doctrine – especially with respect to a less capable NWS, like India – would be more likely to exacerbate tensions and inflame eventual crises. As Dyson argues, strategic doctrines based on counterforce and limited nuclear options targeting concepts are inherently crisis unstable.³⁴⁰ This is because the incentive structure under such doctrines is weighted in favour of early use ('use them or lose them') rather than restraint. A far more likely scenario was posited by Hsieh who, writing in 1962 before China had detonated its first nuclear device, argued that while possession of a small number of atomic weapons would be unlikely to induce Beijing into directly challenging the US, a limited strategic capability could increase China's regional freedom of action by raising the potential cost of US intervention:

If she possessed even a limited nuclear capability, China might be willing to shoulder the risks of initiating a limited war with conventional weapons in the hope that the United States would be discouraged from a nuclear response through fear of an uncontrollable expansion of the conflict. In this way China might see a possibility of enhancing the military and political value of her conventional forces in the face of possible American intervention and, if successful, of casting doubt on the firmness of United States intentions in the area.³⁴¹

According to Hsieh's formulation, China would view strategic weapons primarily as a means of reinforcing its local *marge de manoeuvre* – of easing Washington out of the Asian security equation. Such a strategy would contemplate nuclear use only in a regional context, against forces or facilities that Washington would likely consider theatre targets, but which China, given its strategy of exerting influence over the Western Pacific, would probably view as strategic objectives. In such a campaign scenario the line between strategic and operational targets could easily become blurred, and the short timelines and 'fog of war' would, perhaps inevitably, engender greater confusion on the part of national leaders and decision-makers. The situation would be further exacerbated by the US advantage in conventional military technologies, which would enable Washington to strike nuclear forces with conventional munitions, leading to what Cimbala has termed "in-between cases" of deterrence calculations.³⁴² It is unclear whether Beijing would view a conventional attack against its strategic forces as purely conventional, or whether it would deem such a strike a provocation worthy of a nuclear response. The answer is doubtless highly contingent upon context.

³⁴⁰ Dyson, 252.

³⁴¹ Hsieh, *Communist China's Strategy in the Nuclear Era*, 171.

³⁴² Cimbala, "Anticipatory Attacks", 129.

The first paper in this study concluded that while the evolution of US nuclear strategy was not necessarily driven by technological innovation (at least not in the sense generally implied by the proponents of technological determinism), from Washington's perspective, the key enabling factors in each transition between doctrinal stages were technological capability and numbers – in short, the quality and the quantity of the strategic forces available to Washington. In the same vein, the key impediments to any transition away from minimal deterrence and towards some other strategic perspective on China's part are the size and capability of its strategic forces. Lewis argues that a “sprint to nuclear parity” is “extremely unlikely given China’s current force posture and past decision-making,”³⁴³ but such an argument ignores the fact that quality and quantity are relative values that must be assessed in the context of adversarial relationships. China has more than one potential nuclear adversary. The quality and quantity of China’s strategic nuclear forces are both low when set against the US example, but are somewhat better when compared to Russia’s strategic forces (in part because of Russia’s proximity, which enables Beijing to use its MRBMs to threaten far more targets in Russia than it can threaten in the continental US). Compared to India’s nuclear forces (or for that matter, those of North Korea, in the unlikely event that Beijing ever loses patience with the mercurial regime in Pyongyang), China’s strategic forces are numerically and qualitatively superior.

Comparisons of any strategic balance are impacted by change at both ends of the scale. While this study is focused on China’s nuclear posture, the deterrent value of that posture vis-à-vis China’s most likely adversary, the US, depends equally upon the quality and quantity of America’s strategic forces – and those forces are both aging and, as a consequence of nuclear arms control and disarmament decisions made by the Obama Administration and its immediate predecessors, declining in numbers. Beijing will have no need to, as Lewis puts it, sprint upwards to nuclear parity if Washington continues – or accelerates – the more leisurely downward jog in which its strategic forces have for more than two decades been engaged. If there is an enduring principle to be drawn from this fact, it is that analyses of China’s nuclear posture in isolation from that of its likely adversaries are almost certain to lead to false conclusions.

³⁴³ Lewis, *The Minimum Means of Reprisal*, 205.

6 Conclusion

The purpose of this paper as described in the introduction was, as part of a larger study, to examine the evolution of China's nuclear strategy. Strategy is more than simply policy or even doctrine; it is a composite artefact, an amalgam based on history and shaped by strategic culture, and constrained by a vast array of drivers, many of which may be unique to a state's individual circumstances. China's nuclear strategy, at least in the earliest stages of its development, appears to have been grounded in classical military theory and informed by classical Chinese military philosophy to a greater degree than was the case in the US. It was subsequently shaped by the revolutionary and other military experiences of Mao and his successors, by the ideological commitment to People's War, and by unique adaptations of Marxist-Leninist military theory, first as a derivation from and later in opposition to Soviet military theory.

The evolution of China's approach to nuclear strategy has also been strongly influenced by its uneasy relationship with nuclear deterrence. Early iterations of declaratory policy decreed nuclear weapons as "paper tigers", an ideological posture that was undercut by the effort and resources that Beijing dedicated to its nuclear weapons program. China's initial nuclear capability granted it an existential deterrent vis-à-vis its likely adversaries. By the early 1980s this had evolved, in terms of capability and doctrine, to a minimal deterrent based on a small number of inaccurate missiles carrying high-yield warheads, ensuring that even after a disarming first strike its strategic forces, China might retain the ability to inflict unacceptable damage on an aggressor.

Perhaps as an indication of its regional strategic objectives, Beijing in the 1980s and early 1990s put considerably more effort and resources into building up its tactical and theatre ballistic missile forces. More recent modernization programmes, by contrast, have been aimed at improving Beijing's capacity to challenge the ability to the US to operate freely, first in China's littoral waters, then in Beijing's area of influence and interest, and more broadly in the Western Pacific. China's long-range strategic forces are designed not to engage in a traditional deterrence relationship with the US, as the USSR did, over global aims, but rather to raise the potential cost to the US of interfering in China's prosecution of what it deems to be its regional interests. While this corresponds more to what in the US-USSR context would have been deemed limited deterrence than to China's self-described policy of minimum deterrence, the characteristics of the China-US relationship are such that the result is unique to contemporary circumstances. For all intents and purposes, that relationship, at least in the regional context that is the principal focus of China's political (or grand) strategy, is the product of a state of essential equivalence in nuclear capacity that is, as a consequence of China's ongoing force expansion and America's ongoing force reductions, evolving gradually towards parity.

Some comparisons to the past can certainly be made. For example, it has been suggested that the US-Taiwan security relationship bears some resemblance to the relationship between the USSR and Cuba in the 1950s. The substance of Moscow's commitment to Cuba's security rested on its willingness to risk a nuclear strike to deter the US from pressuring Cuba – and as it turned out, when push came to shove, Moscow was not willing to entertain this risk. The extent of Washington's commitment to Taiwan has yet to be similarly tested. As China's strategic forces and its conventional capability continue to grow, the key questions will be "where and how will Washington be willing to draw the line regarding possible Chinese challenges to US interests in

East Asia,”³⁴⁴ and how hard will China be willing to push. The answers to these questions, especially the latter one, will provide important information about Beijing’s intentions. If, as Beijing insists, Taiwan is the key rationale underlying China’s strategic building, then China’s insistence on expanding its nuclear forces at a time when the other ‘legal’ NWS are reducing theirs makes China “a certain kind of rising power” – and its acquisition of more, and more asymmetric, nuclear capabilities “indicate ambitions well beyond Taiwan [that] remain to be explained.”³⁴⁵

This paper then examined certain key elements of China’s declaratory policy, focusing on Beijing’s long-standing no first-use pledge; its approach to the international compendium of nuclear non-proliferation, arms control and disarmament treaties and agreements; and its view of ballistic missile defences. In each of these areas, there is a significant gap between Beijing’s declaratory policy and its actions in terms of military R&D, weapons testing, doctrine, and ongoing modifications and upgrades to force structure and deployments. China’s NFU pledge is undermined by elements of strategy and doctrine that appear likely to permit first-use under circumstances where it would be strategically advantageous for China to do so; its arms control efforts appear to be designed less as instruments of international altruism than as a means of minimizing both China’s strategic lacunae and the strategic advantages enjoyed by potential adversaries; and its vocal opposition to missile defences as destabilizing appears disingenuous and self-serving in light of Beijing’s recent tests of anti-satellite and anti-ballistic missile weapons. Studies based on interpretations of what a government declares its intentions to be without being able to view the internal deliberations of that government are inevitably less than satisfactory; but sometimes they are the limit of what is possible. As an historian examining Britain’s chemical weapons programmes has remarked, what is important is to “remember the differences between declared, contingency and implemented policy.” This is “particularly [necessary] in cases...where the historical record remains opaque.”³⁴⁶

Based on this analysis, the final chapter in this paper looked at where China’s nuclear strategy appeared to be trending at the present moment – i.e., where on the aggregate curve of its overall trajectory it appears to be at time of writing. Analyses based on inferences rather than concrete sources age poorly. While suggestions that China may be attempting to develop a counterforce capability with respect to the larger NWS do not appear to be justified on the facts, Beijing undeniably seems to be attempting to increase the number of options – including nuclear options – available to counter attempts by the US and others to interfere with realization of its strategic objectives within its area of interest and influence. This includes the capacity not only to maintain and enhance the nature of the threat that China is able to pose to the continental United States but also to significantly expand its ability both to threaten targets, including US and allied forces in the Western Pacific, with nuclear strikes; and to outflank the conventional advantages enjoyed by the US and its key allies through asymmetric means. Accordingly, while it is not clear where the trajectory of China’s nuclear posture may be leading, what is clear is that Beijing is no longer satisfied with its long-standing posture of minimum deterrence – if indeed it ever was.

³⁴⁴ David A. Shilpkar, “Questions of Balance: The Shifting Cross-Strait Balance and Implications for the U.S.”, Testimony presented before the U.S.-China Economic and Security Review Commission (Washington, D.C.: The Rand Corporation, 8 March 2010), 6-7.

³⁴⁵ Newmyer, 502.

³⁴⁶ Brian Balmer, “Keeping Nothing Secret: United Kingdom Chemical Warfare Policy in the 1960s”, *The Journal of Strategic Studies*, Vol. 33, No. 6 (December 2010), 892.

The first paper in this study described in very sparse terms the evolution of US nuclear strategy to serve as a benchmark for the more detailed examination of the evolution of China's nuclear posture. It is therefore worth asking how well the latter matches up with the former. The answer is, not well at all (the US conceptual and technological waypoints are described at Table 2 of that paper).³⁴⁷ While China's first nuclear detonation was accompanied by a call for an international ban on nuclear weapons, this is assessed to have been an exercise in propaganda and an attempt to seize the moral high ground from China's better-armed adversaries. There was never any realistic prospect of China initiating nuclear disarmament – and Beijing's subsequent behaviour vis-à-vis the international NACD regime substantiates this judgement. As a new NWS facing much larger and more capable nuclear adversaries, Massive Retaliation was never an option for China. Beijing did entertain a doctrine of nuclear war-fighting (and continues to do so), but this was not credible until People's War had been modified to accommodate 'modern conditions'. Due to the nature of its strategic arsenal (inaccurate missiles bearing high-yield warheads), 'city-avoidance' has never been an option for China, and it is only very recently that the technological stage has been set for a very limited counterforce capability through the introduction of more accurate, solid-fuelled missiles with smaller warheads deployed either in hardened silos, or on mobile launchers.

Rather than mimicking the US experience, in short, China has taken the "road less travelled by", eschewing parallelism in favour of attempting to outflank potential adversaries by building up a suite of capabilities designed to exploit perceived systemic weaknesses. Weapons systems like the ASAT, China's nascent anti-ship ballistic missile (ASBM), long-range cruise missiles, and high-performance air defence systems are all aimed at negating, at minimal cost, areas of US superiority. These systems will not give China the capacity to fight the US and prevail on the high seas, but they could raise the cost of US intervention within first and second island chains, which Beijing regards as its area of interest and influence. The waypoints in China's strategic evolution, in other words, are different because China started late; has never attempted to match the US in strategic forces; and has instead, in recent years, adopted what some have deemed an 'asymmetric strategy' designed to dissuade Washington from interfering in the achievement of China's regional goals by developing the ability to threaten perceived areas of American military vulnerability. Whether the quest for 'asymmetry' is truly novel or simply an evolutionary adaptation of the ages-old 'active defence' strategy that predates People's War remains open to debate; the present author, as is hopefully clear from the foregoing, inclines toward the latter interpretation. This assessment will be investigated in greater depth in later papers in the course of this study.

It also necessitates a brief review of the ten caveats posited in the introductory paper. This analysis confirms the first caveat, which was that China's decision to begin its nuclear trajectory with a minimal deterrent vis-à-vis its principle adversaries necessarily means that its strategic evolution will differ from those of the US and other NWS. The second and eighth caveats are likewise reinforced; both America's and China's strategic evolutionary paths were highly influenced by their respective geostrategic circumstances. China, for example, only began to investigate sea-basing for its deterrent force comparatively late in its evolution as a nuclear power, and still has not mastered the capabilities necessary to maximize survivability. China appears to view the sea as a source of threats rather than opportunities, and has put relatively more resources into denying potential enemies the ability to freely navigate rather than maximizing the operational effectiveness of the PLAN. The third caveat was also borne out;

³⁴⁷ Neill, *Background and benchmark*, Table 2, 25.

whereas the US slipped into and out of nuclear war-fighting doctrines on at least four occasions, China has contemplated nuclear war-fighting since the days of its first detonation (although in practical terms, adequate doctrine had to wait until Mao's death and Deng's transformation of People's War into People's War under modern conditions).

The fourth caveat posited that the fundamental differences between how democracies and totalitarian states are governed will necessarily result in differences in their strategic nuclear evolution. This also appears to have been the case. While it is customary in the salons of academe to ascribe similar motivations and behaviours to all states, it is a simple fact that totalitarian states like China are able to get away with acting in bad faith on the international stage (for example, in arms control negotiations) because the leadership is not accountable to the populace. A US administration that advanced logically implausible policy positions (e.g., that another nation's impending strategic force modernization was the cause of the force modernization programmes that had already been under way for years), or that signed an arms control agreement and was later found to be systematically and grossly violating it, could be punished for its mendacity at the polls. The CPC regime in Beijing faces no such checks on its behaviour. Similarly, the fifth and sixth caveats – which centre on the contention that strategy, doctrine and declaratory policy are not necessarily linked – has also been demonstrated by the foregoing analysis, which has shown that they may, indeed, be entirely unrelated. This reinforces the importance of focussing, in analysis, less on what a state *says* it wants to do than on what it *can and cannot* do.

The seventh caveat – the extent to which concern over the moral high ground can induce a state to modify its policy, and to a lesser extent its capability and doctrine – was likewise borne out by the analysis in this paper. China's adamant adherence to its NFU policy represents an attempt by Beijing to make a virtue out of a necessity, for two reasons: first, the list of states that are likely to engage in hostilities with China and that Beijing can safely threaten with nuclear weapons is very short (India, Japan and Taiwan – and two of those three are explicitly under the US 'nuclear umbrella'); and second, the NFU policy costs Beijing nothing and can be abandoned at a moment's notice. Its substantive value as a stabilizing factor in the China's deterrent relations, therefore, is precisely zero – but its utility as a tool of propaganda is considerable. Similarly, China has always advocated complete nuclear disarmament (which, if effected, would be of enormous advantage to a large industrialized country with the world's biggest population) and has, in recent decades, embraced the international NACD regime while simultaneously undermining it at the UN, and observing its strictures and principles only when it suits Beijing to do so. It is disingenuous, for example, to conduct the most polluting ASAT test in history, and then immediately call for a ban on the weaponization of space.

The ninth caveat – that in the nuclear field strategy and technology are intimately interconnected, but that the arrow of causality in the relationship is not necessarily always apparent – also came into play in this analysis. In both the US and Soviet cases, strategy – the intersection of what the state wanted to do with what it could do – was heavily influenced by the evolution of technology. This was not always the case in China's nuclear evolution; the decision by Mao, and later by Deng, to subordinate China's rise as a NWS to its rise as an industrial and economic power meant that China never deployed as many weapons systems as it could have done. There was, of course, little point in doing so, because there was no prospect of out-deploying either the US or the USSR (or for that matter, the UK and France); but the end result was that technology does not appear to have driven strategic evolution in China to as great an extent as it did in the US and Russia. Indeed, in recent years, as China has sought to exploit US technological weaknesses through

asymmetric deployments, policy has been more likely to drive the search for new technologies. The ASAT and ASBM are two key examples of this trend.

The tenth caveat argued that a state's strategic nuclear evolution may be heavily influenced by its strategic culture. This, I would argue, should go without saying. China's strategic culture is very different from that of the US, with the result that its approach to nuclear strategy has proven more likely to derive key principles from China's historical, cultural, philosophical and military roots than from those of its adversaries. 'Globalization' and other vast, impersonal forces allegedly deriving from modern applications of information technology are supposed to be homogenizing once-disparate nations, but there is no evidence that this is happening in the sphere of nuclear strategy. The challenge facing the analyst is manifested in something as simple as divergent definitions of supposedly well-understood concepts; 'deterrence' and 'defence', for example, have demonstrably different meanings in the Chinese context than they do in the West. The analyst must be cognizant of these differences when attempting to unpack the contents of foreign sources, even if – perhaps *especially* if – they have already been translated into English.

With respect to China's ongoing evolution as a NWS, it is not pleasant to contemplate the potential consequences of a shift from minimum deterrence to something that may resemble a strategy of limited nuclear war. It has often been postulated that any nuclear war would by definition be catastrophic, and must therefore be avoided at all costs. However, if war appears inevitable, then limited nuclear war confined to a regional context would doubtless seem preferable to a full nuclear exchange that might extend to counter-value strikes against population centres. In such circumstances, a series of limited strikes designed to eliminate the possibility of conventional interference in a regional Chinese adventure might seem the rational choice to a totalitarian government facing its worst fear – defeat in a vital strategic enterprise leading to collapse of the regime. For all its protestations about its growing strength and influence, China's nuclear posture – for the time being, at least – is such that it is far more likely that Beijing would use nuclear weapons out of a perception of weakness or desperation than as a deliberate and confident political act.

As noted in the introduction to this paper, in addition to theory, doctrine and declaratory policy, strategy comprises technological capacity, force structure and posture, weapons systems, and military R&D in the context of the location and geography of a state, its people and resources, its neighbours, and its past and present conduct. Based on an objective assessment of these criteria, it is possible to define an array of probable strategic trajectories for that state, and select therefrom those (or even the one) most likely to describe its preferred path towards its desired end-state. While Beijing, for the sake of diplomacy, will probably continue to maintain minimal deterrence as its official declaratory policy, China's nuclear posture – the sum total of its nuclear capabilities, its nuclear doctrine, and the answers that it is developing both within and outside of government and to past and evolving questions of nuclear strategy – is transforming into something else. While aspects of the transformation are likely to resemble (at least in part) some aspects of America's strategic nuclear evolution since 1945, the trajectory of China's strategic nuclear evolution since its first detonation nearly fifty years ago has been comparatively unique.

The next, third, paper in this study will examine and assess the current status of China's strategic nuclear forces, looking both at extant systems and their capabilities and the programmes that are currently underway to update, upgrade or augment them. The fourth paper will attempt to divine the contemporary factors and influences that constitute the fundamental drivers of China's

declaratory policy, strategy and doctrine in the nuclear domain. These and previous studies will be subsumed in a capstone paper that will offer an assessment of the likely trajectory of China's nuclear thought and its strategic forces; propose recommendations for Canada and for allied states as they attempt to come to grips with the challenges and opportunities offered by China in the years ahead; and identify useful directions for further research into China's strategic intentions and capabilities.

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List of terms and acronyms

ABM	Anti-Ballistic Missile
ALCM	Air-Launched Cruise Missile
ARP	Applied Research Programme
ASAT	Anti-Satellite
BMD	Ballistic Missile Defence
BTWC	Biological and Toxin Weapons Convention
CMC	Central Military Commission (PRC)
CPC	Communist Party of China
CWC	Chemical Weapons Convention
DOD	Department of Defense (US)
DPRK	Democratic People's Republic of Korea
ERW	Enhanced Radiation Weapon ("Neutron Bomb")
GBI	Ground-Based Interceptor
ICBM	Inter-Continental Ballistic Missile
INF	Intermediate-range Nuclear Forces
kt	Kiloton
LNO	Limited Nuclear Options
MAD	Mutual Assured Destruction
MDA	Missile Defence Agency
MIRV	Multiple Independently-targetable Re-entry Vehicle
MR	Massive Retaliation
MRBM	Medium-Range Ballistic Missile

Mt	Megaton
NACD	Non-proliferation, Arms Control and Disarmament
NATO	North Atlantic Treaty Organization
NFU	No First Use
NMD	National Missile Defence
NNWS	Non-Nuclear Weapon State
NORAD	North America Air Defence Command
NPR	Nuclear Posture Review
NPT	Non-Proliferation Treaty
NRDC	Natural Resources Defense Council
NSA	Negative Security Assurances
NSTDB	National Strategic Target Data Base
NWFZ	Nuclear Weapons-Free Zone
NWS	Nuclear Weapon State
PAROS	Prevention of an Arms Race in Outer Space
PD	Presidential Directive
PDD	Presidential Decision Directive
PLA	People's Liberation Army
PLAAF	People's Liberation Army Air Force
PLAN	People's Liberation Army Navy
PRC	People's Republic of China
PVO	<i>Provito Vozdushnaya Oborona</i> (Russian); National Air Defence Forces (currently <i>Voyska PVO</i> ; formerly <i>PVO Strany</i>)
RMA	Revolution in Military Affairs

ROC	Republic of China
ROK	Republic of Korea
SALT	Strategic Arms Limitation Talks
SAO	Selective Attack Option
SDI	Strategic Defence Initiative
SIOP	Single Integrated Operational Plan
SLBM	Submarine-Launched Ballistic Missile
SORT	Strategic Offensive Reductions Treaty ("Moscow Treaty")
SRAM	Short-Range Attack Missile
SSBN	Fleet ballistic missile submarine
START	Strategic Arms Reduction Talks
TEL	Transporter-Erector-Launcher
UNSC	United Nations Security Council
USSR	Union of Soviet Socialist Republics

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This paper is the second part of a larger study the principal purpose of which is to determine the trajectory of China's nuclear weapons policy, strategy, capability and doctrine. Building on the first paper, which provided a benchmark for comparative analysis in the form of an overview of the evolution of US nuclear strategy since the end of the Second World War, this paper discusses the origins of China's nuclear strategy; its view of deterrence; what certain elements of its declaratory policy reveal about Beijing's nuclear strategy; and where that strategy appears to stand at present. The paper concludes that while the evolution of China's nuclear strategy bear some resemblance to Western patterns of nuclear evolution, the process has been largely unique; and that although Beijing will probably maintain an official commitment to minimal deterrence, China's nuclear strategy has progressed well beyond its declaratory policy, and is continuing to change rapidly. Further papers in this study will examine China's strategic nuclear forces, and investigate the principal drivers of China's declaratory policy, nuclear strategy, and nuclear doctrine. The study will conclude with a comprehensive report discussing the apparent trajectory of China's nuclear posture and the implications thereof for Canada and its allies, and suggesting directions for future research.

Ce document est le deuxième volet d'une étude plus large dont l'objet principal est de déterminer la trajectoire de la Chine en matière de politique des armes nucléaires, la stratégie, la capacité et la doctrine. S'appuyant sur le premier document, qui a fourni un point de repère pour l'analyse comparative sous la forme d'un aperçu de l'évolution de la stratégie nucléaire américaine depuis le début de la Seconde Guerre mondiale, cet article discute les origines de la stratégie nucléaire de la Chine; son point de vue de la dissuasion; ce que certains éléments de sa politique déclaratoire révèlent sur la stratégie nucléaire de Pékin, et où cette stratégie semble se tenir à l'heure actuelle. Le document conclut que, bien que l'évolution de la stratégie nucléaire de la Chine ait quelque ressemblance aux modèles occidentaux de l'évolution nucléaire, le processus a été en grande partie unique, et que, bien que Pékin va probablement maintenir un engagement officiel à la dissuasion minimale, la stratégie nucléaire de la Chine a progressé bien au-delà de ses politiques déclaratoires, et continue d'évoluer rapidement. D'autres documents dans cette étude examineront les forces nucléaires stratégiques de la Chine, et d'enquêter sur les principaux moteurs de la politique déclaratoire de la Chine, la stratégie nucléaire, et la doctrine nucléaire. L'étude se terminera par un rapport complet discuter de la trajectoire apparente du dispositif nucléaire de la Chine et ses conséquences pour le Canada et ses alliés, et à suggérer des orientations pour la recherche future.

14. **KEYWORDS, DESCRIPTORS or IDENTIFIERS** (Technically meaningful terms or short phrases that characterize a document and could be helpful in cataloguing the document. They should be selected so that no security classification is required. Identifiers, such as equipment model designation, trade name, military project code name, geographic location may also be included. If possible keywords should be selected from a published thesaurus, e.g. Thesaurus of Engineering and Scientific Terms (TEST) and that thesaurus identified. If it is not possible to select indexing terms which are Unclassified, the classification of each should be indicated as with the title.)

China, Chinese, Nuclear, Nuclear Weapons, Nuclear Strategy, Strategy, Asia, Asian Security, Deterrence

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